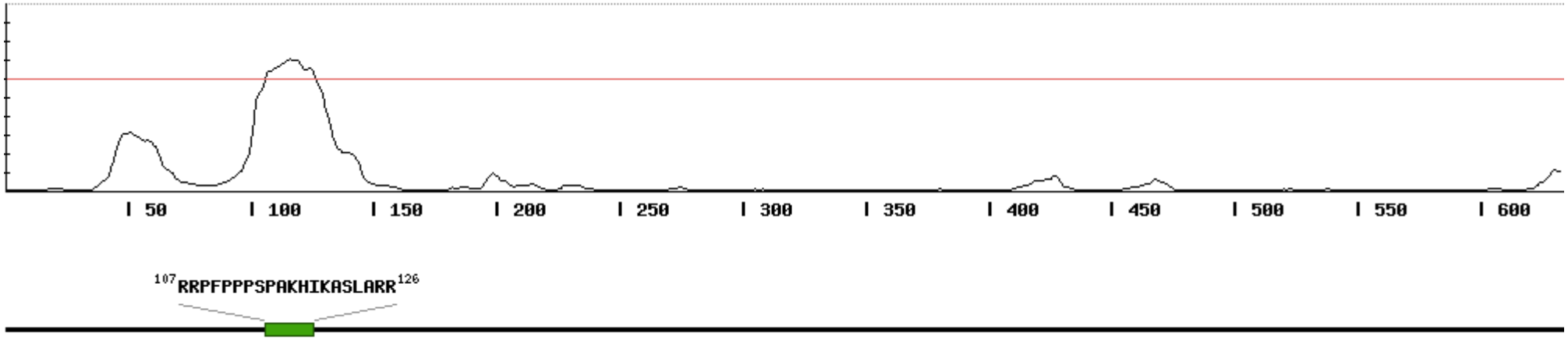
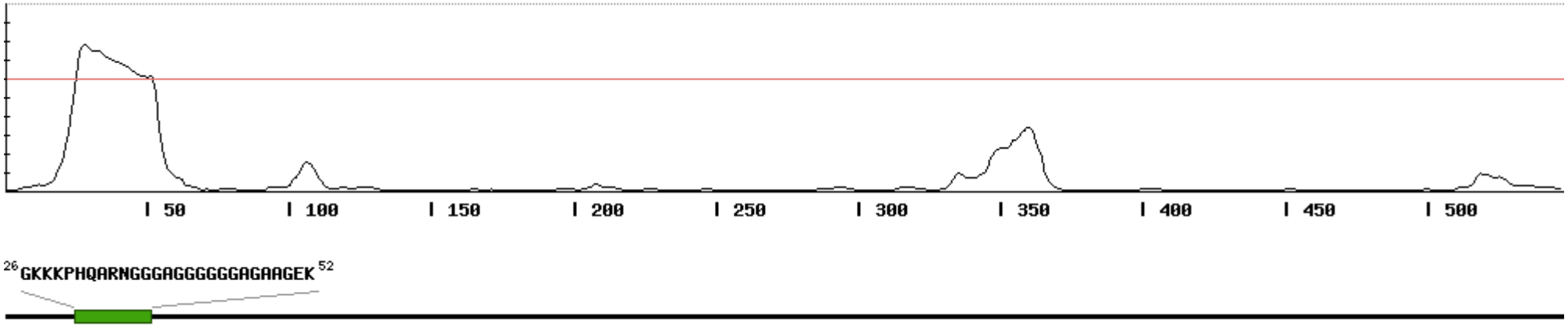
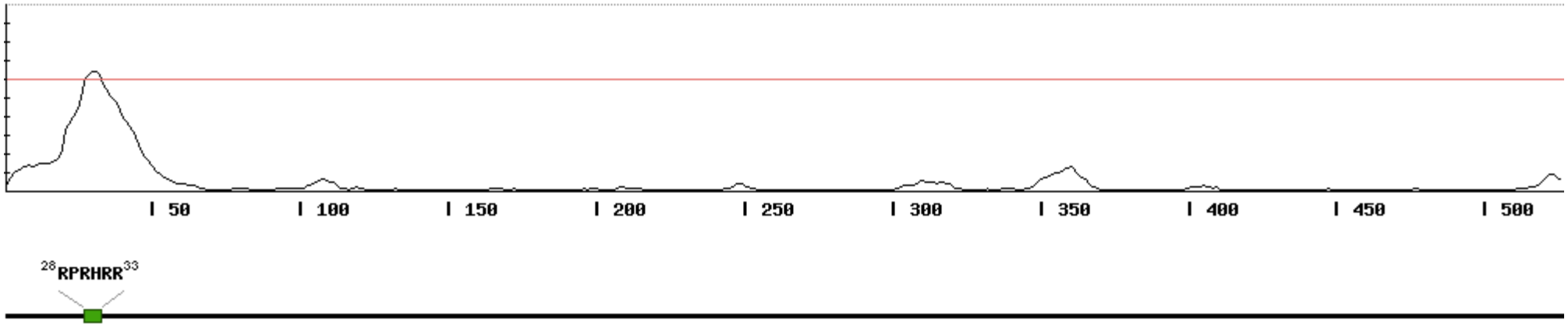


HvSnRK-3

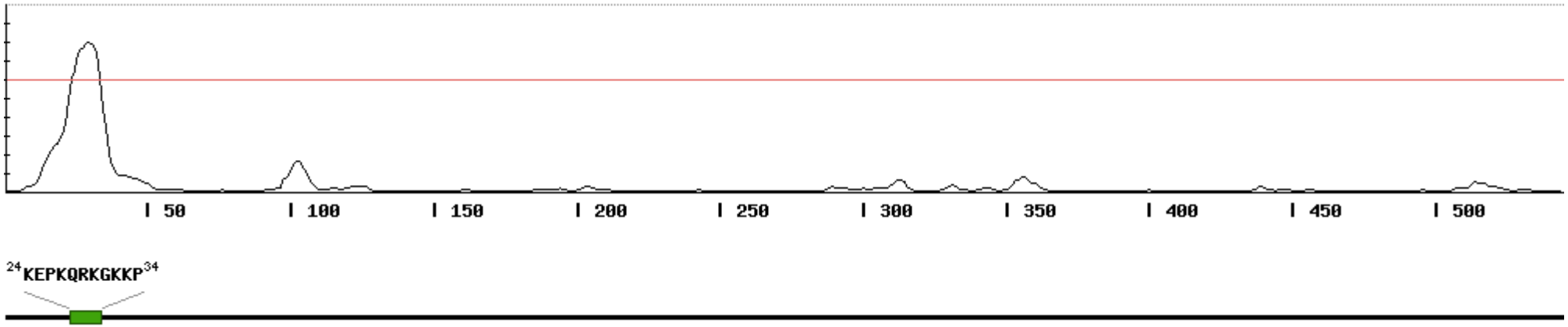


HvSnRK-8

Fig. S1. Nuclear localization signal (NLS) prediction for HvSnRK proteins

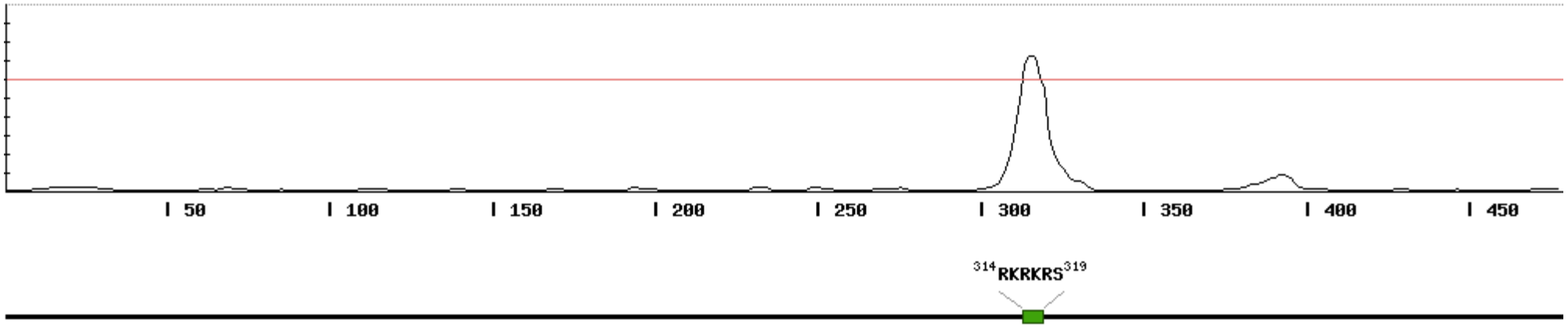


HvSnRK-12

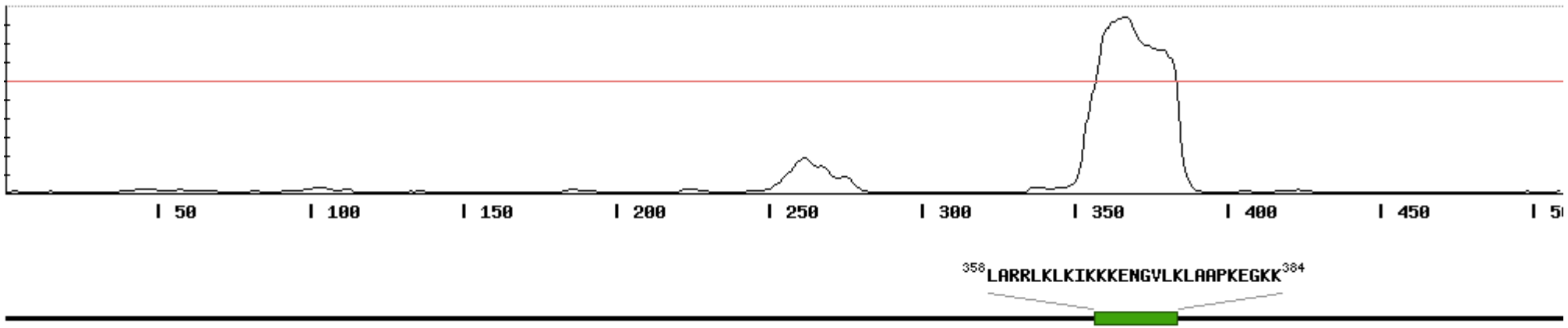


HvSnRK-21

Fig. S2. Nuclear localization signal (NLS) prediction for HvSnRK proteins

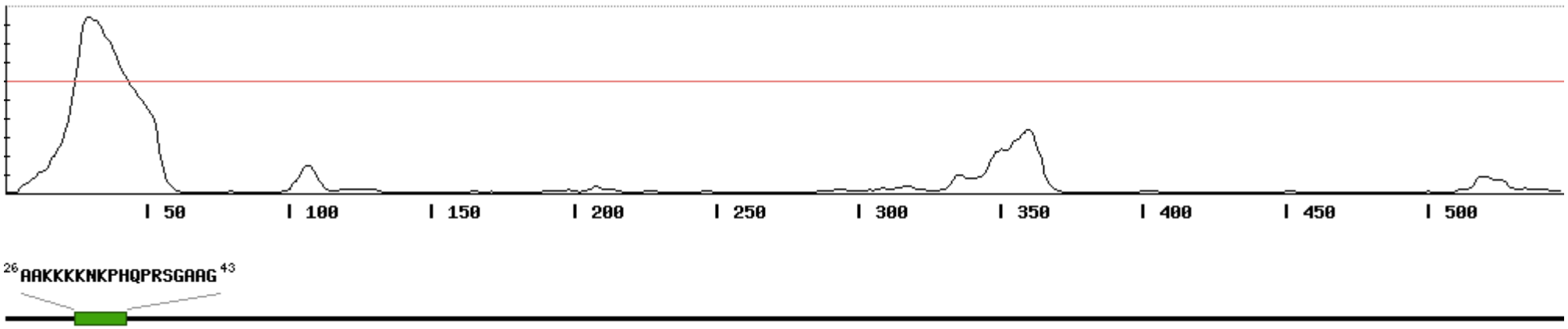


HvSnRK-34

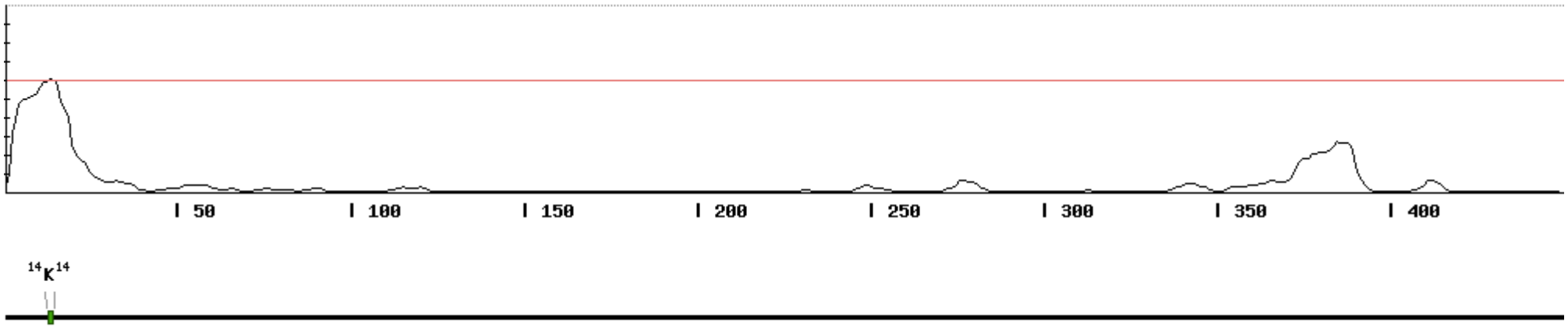


HvSnRK-37

Fig. S3. Nuclear localization signal (NLS) prediction for HvSnRK proteins

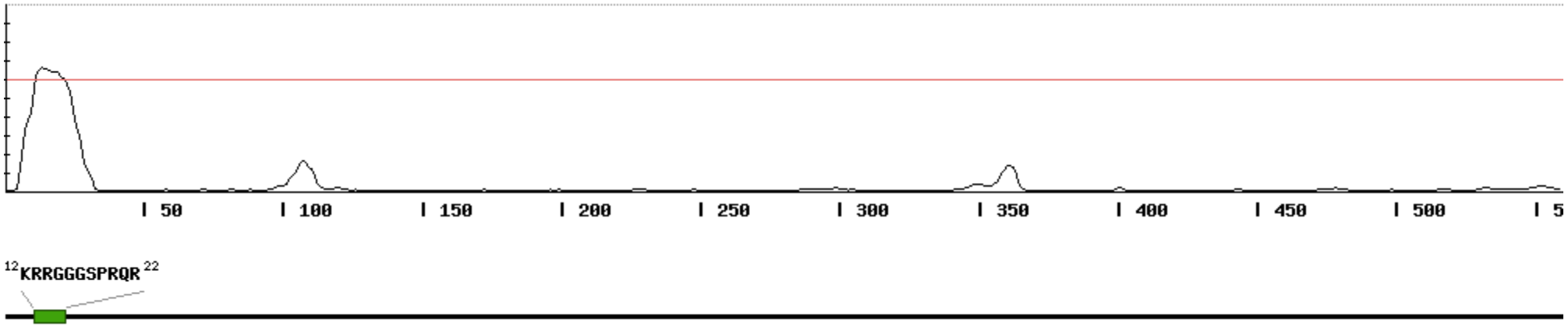


HvSnRK-39

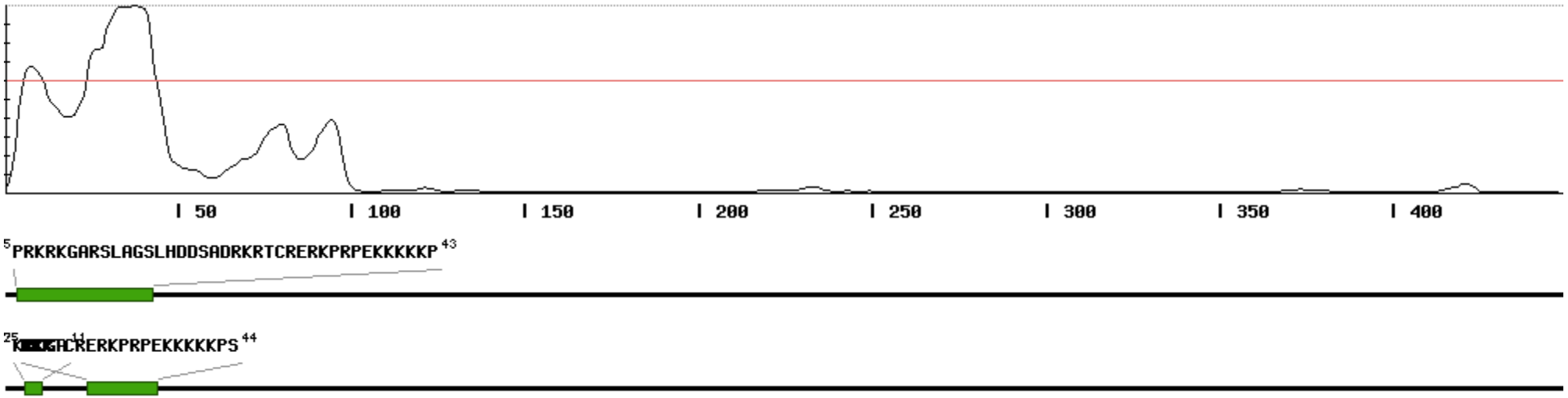


HvSnRK-50

Fig. S4. Nuclear localization signal (NLS) prediction for HvSnRK proteins

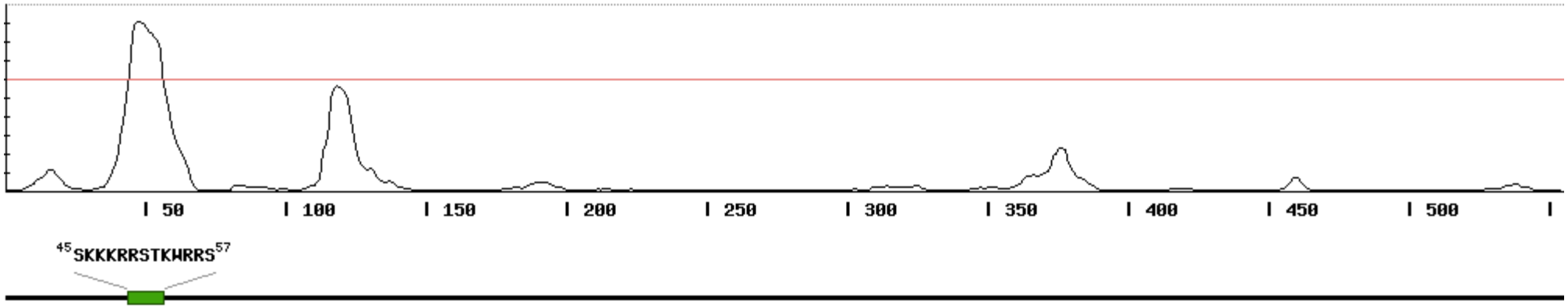


HvSnRK-56

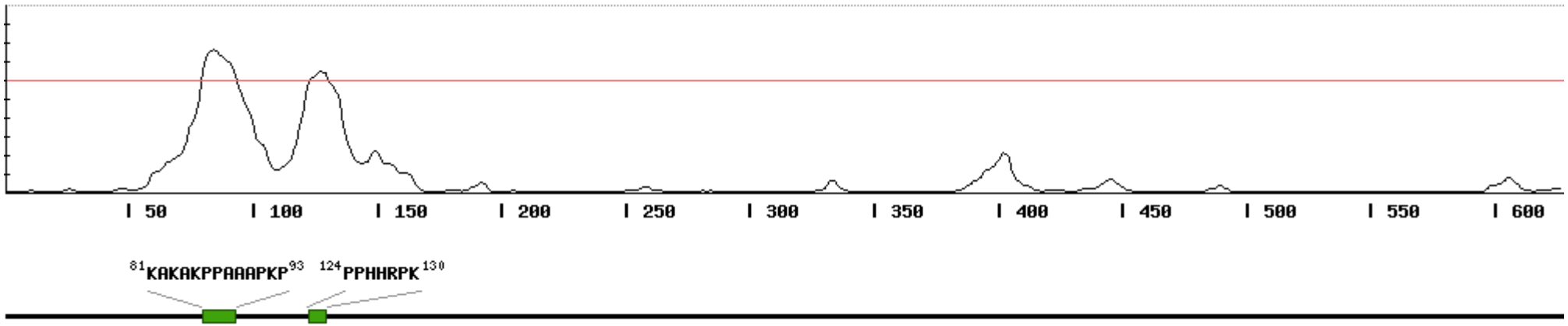


HvSnRK-64

Fig. S5. Nuclear localization signal (NLS) prediction for HvSnRK proteins

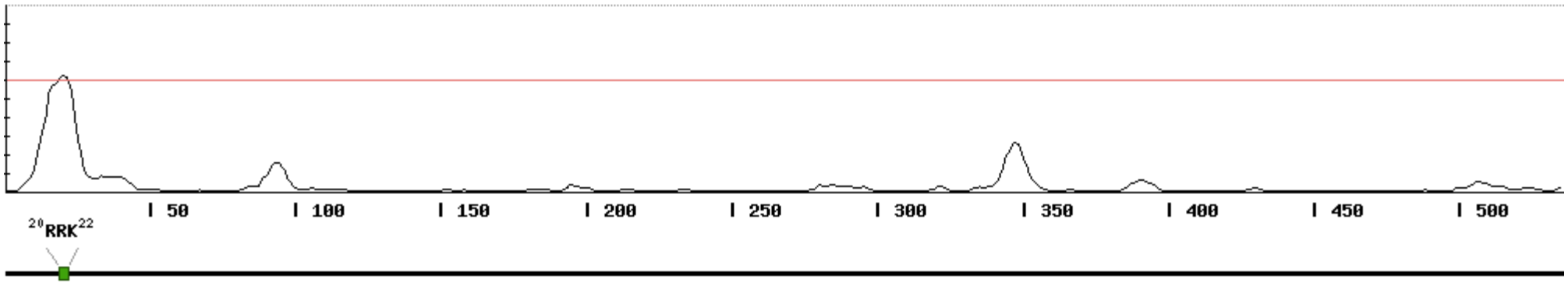


HvSnRK-65

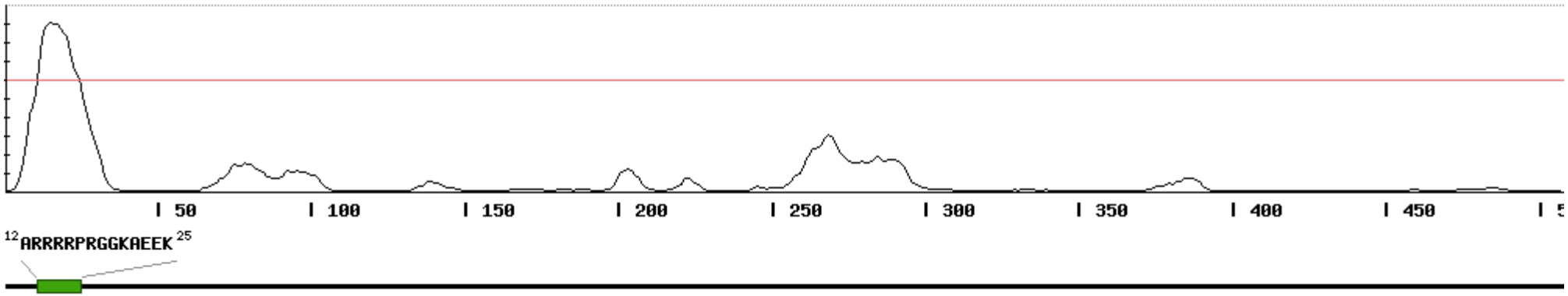


HvSnRK-68

Fig. S6. Nuclear localization signal (NLS) prediction for HvSnRK proteins

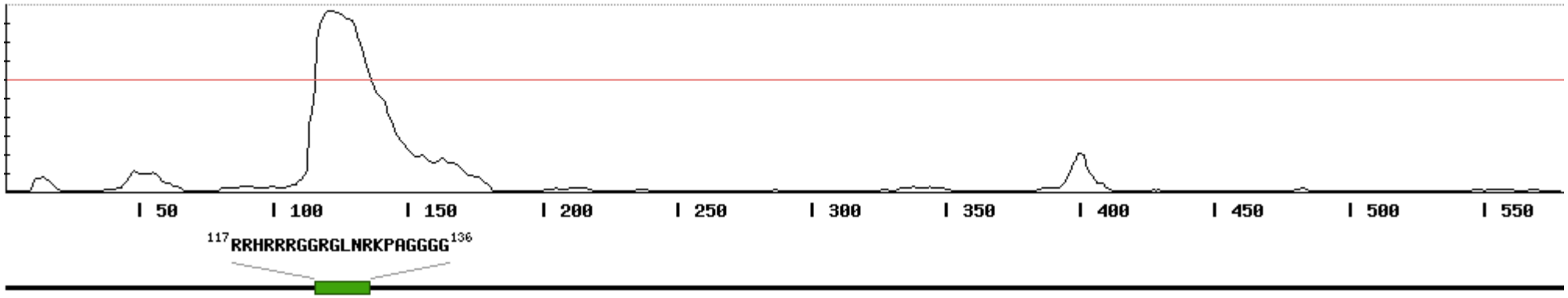


HvSnRK-70

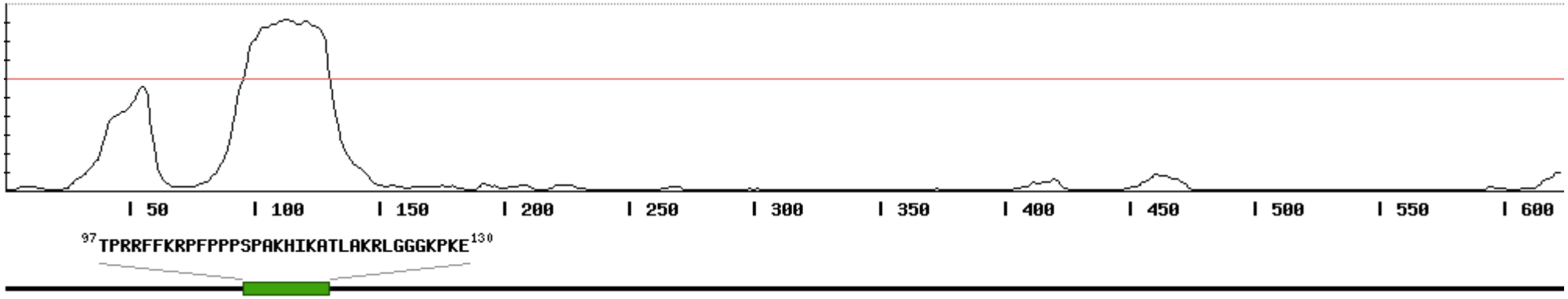


HvSnRK-71

Fig. S7. Nuclear localization signal (NLS) prediction for HvSnRK proteins



HvSnRK-78



HvSnRK-81

Fig. S8. Nuclear localization signal (NLS) prediction for HvSnRK proteins

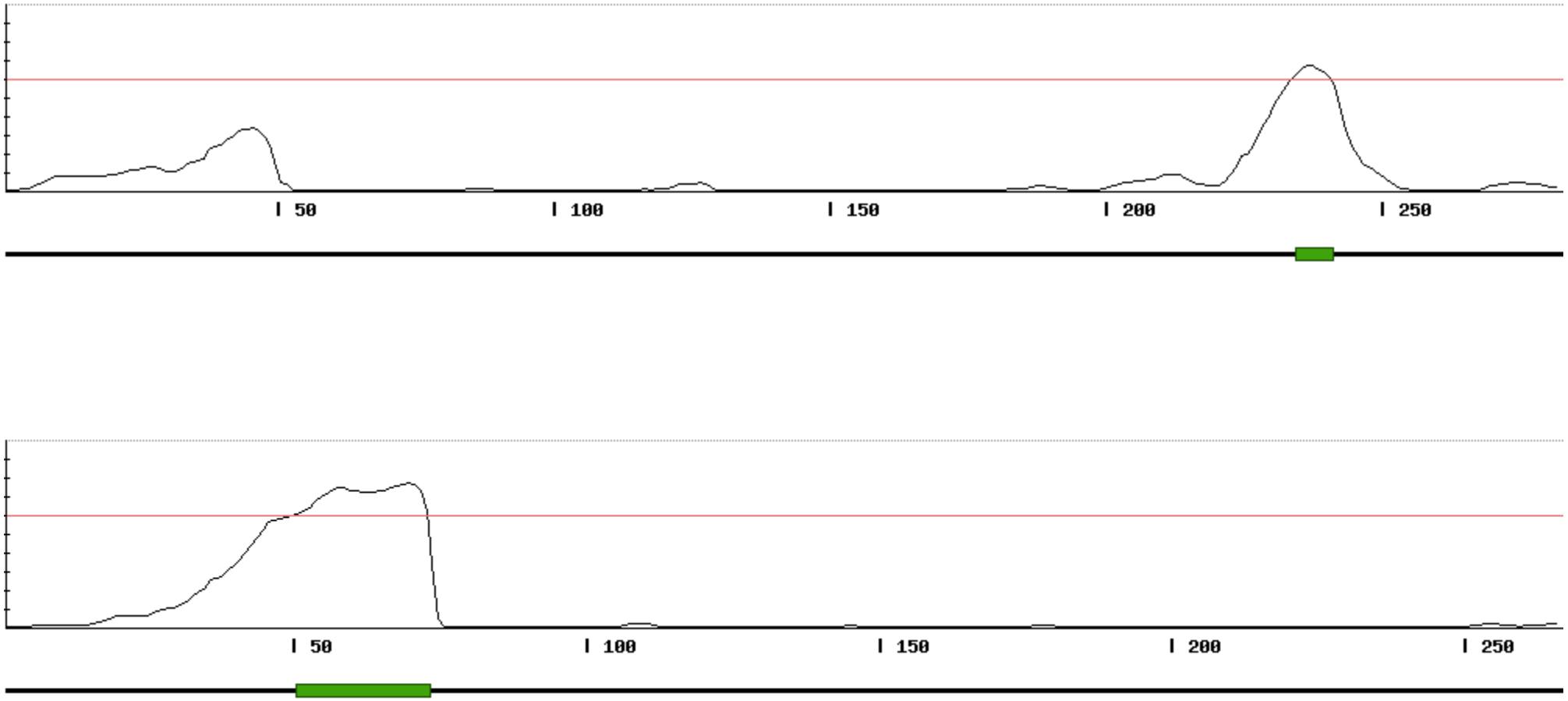


Fig. S9. Nuclear localization signal (NLS) prediction for HvSnRK proteins

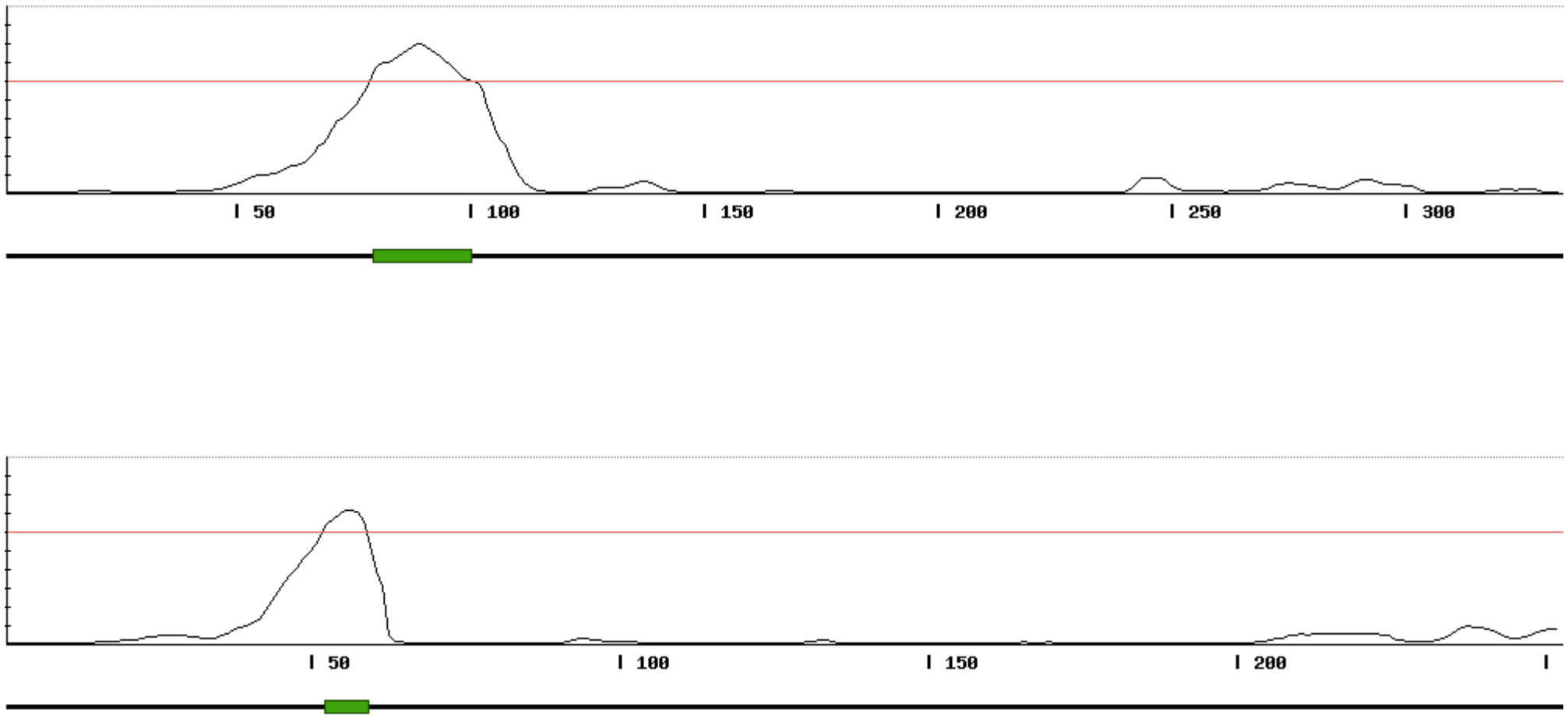


Fig. S10. Nuclear localization signal (NLS) prediction for HvSnRK proteins

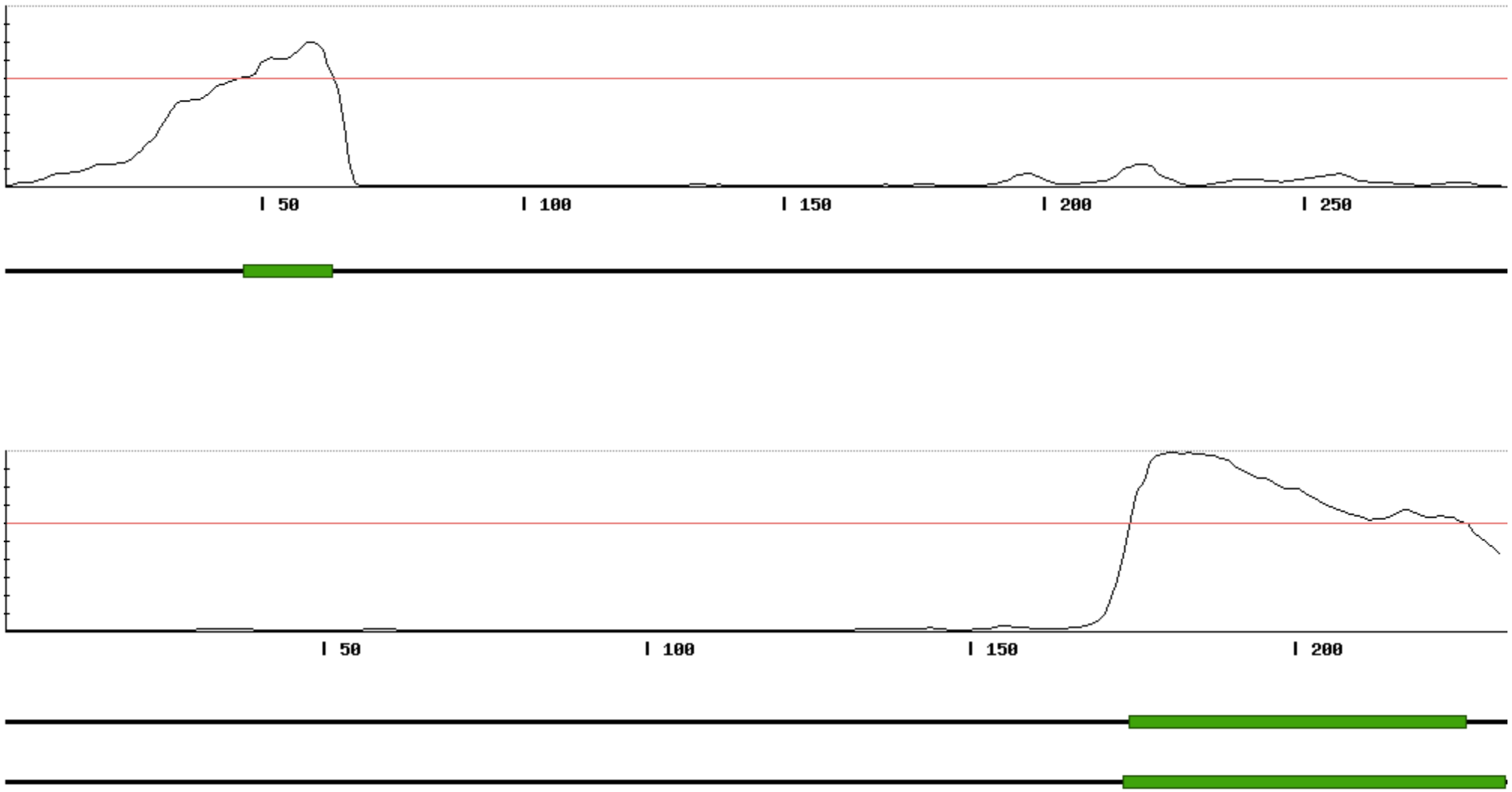


Fig. S11. Nuclear localization signal (NLS) prediction for HvSnRK proteins

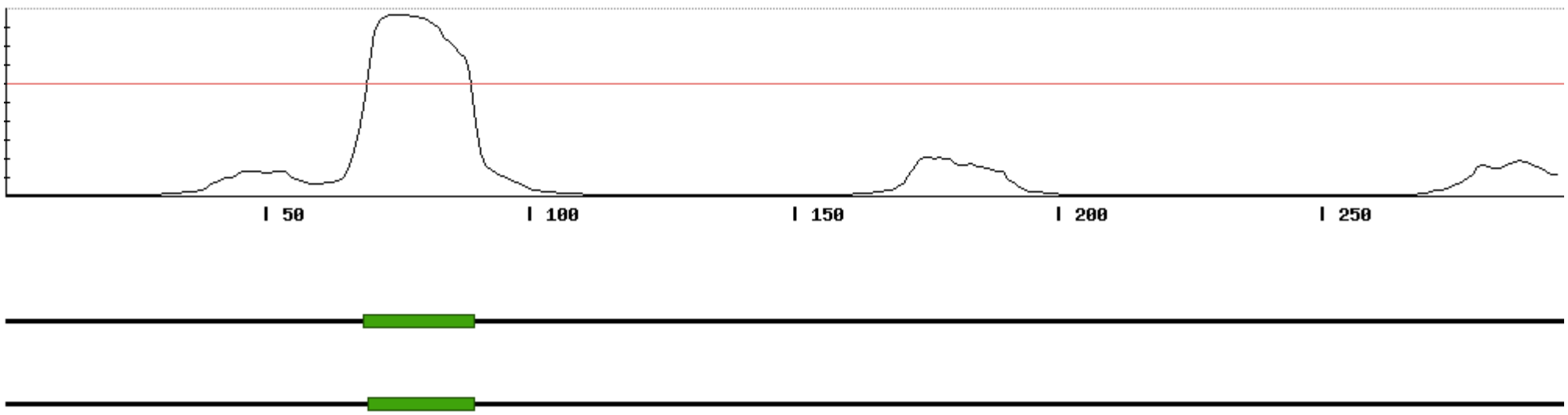


Fig. S12. Nuclear localization signal (NLS) prediction for HvSnRK proteins

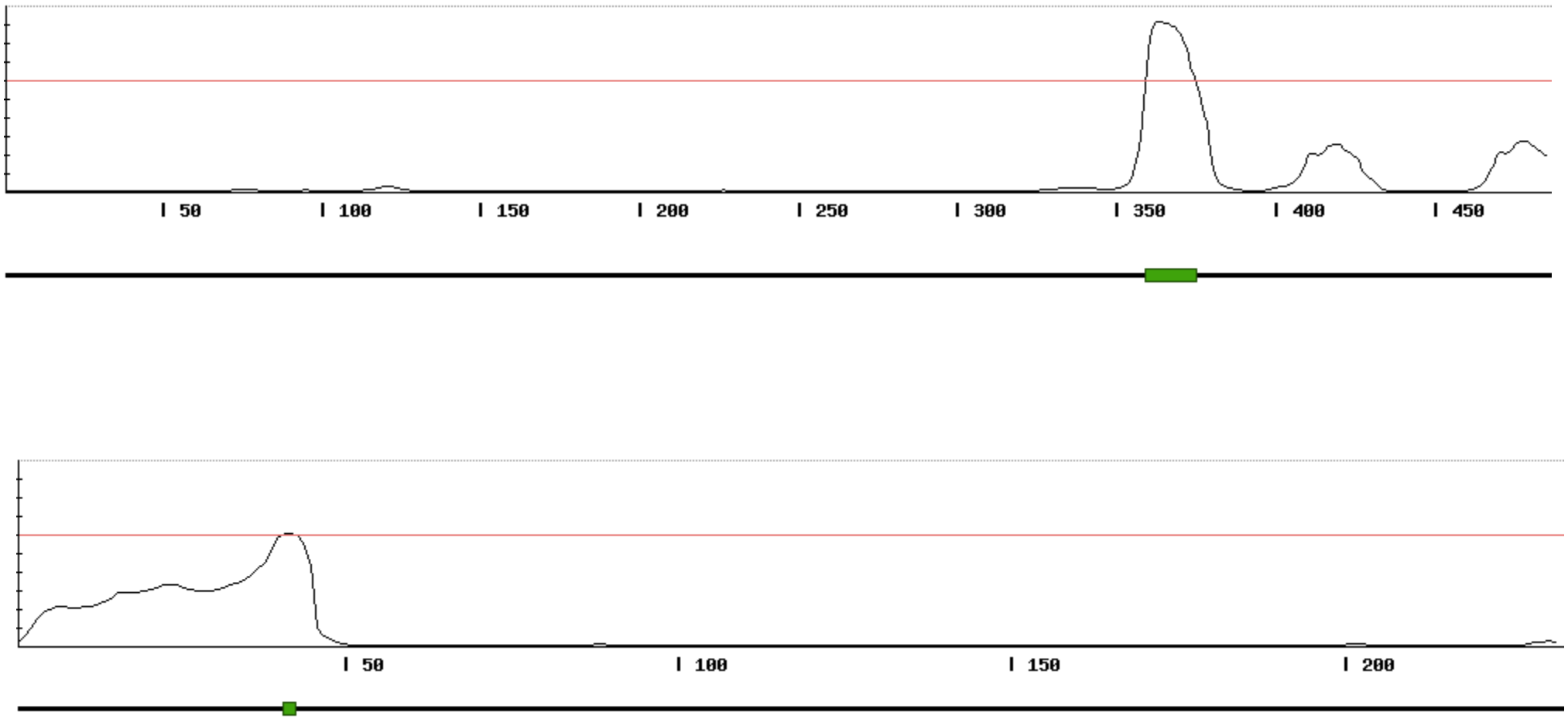


Fig. S13. Nuclear localization signal (NLS) prediction for HvLEA proteins

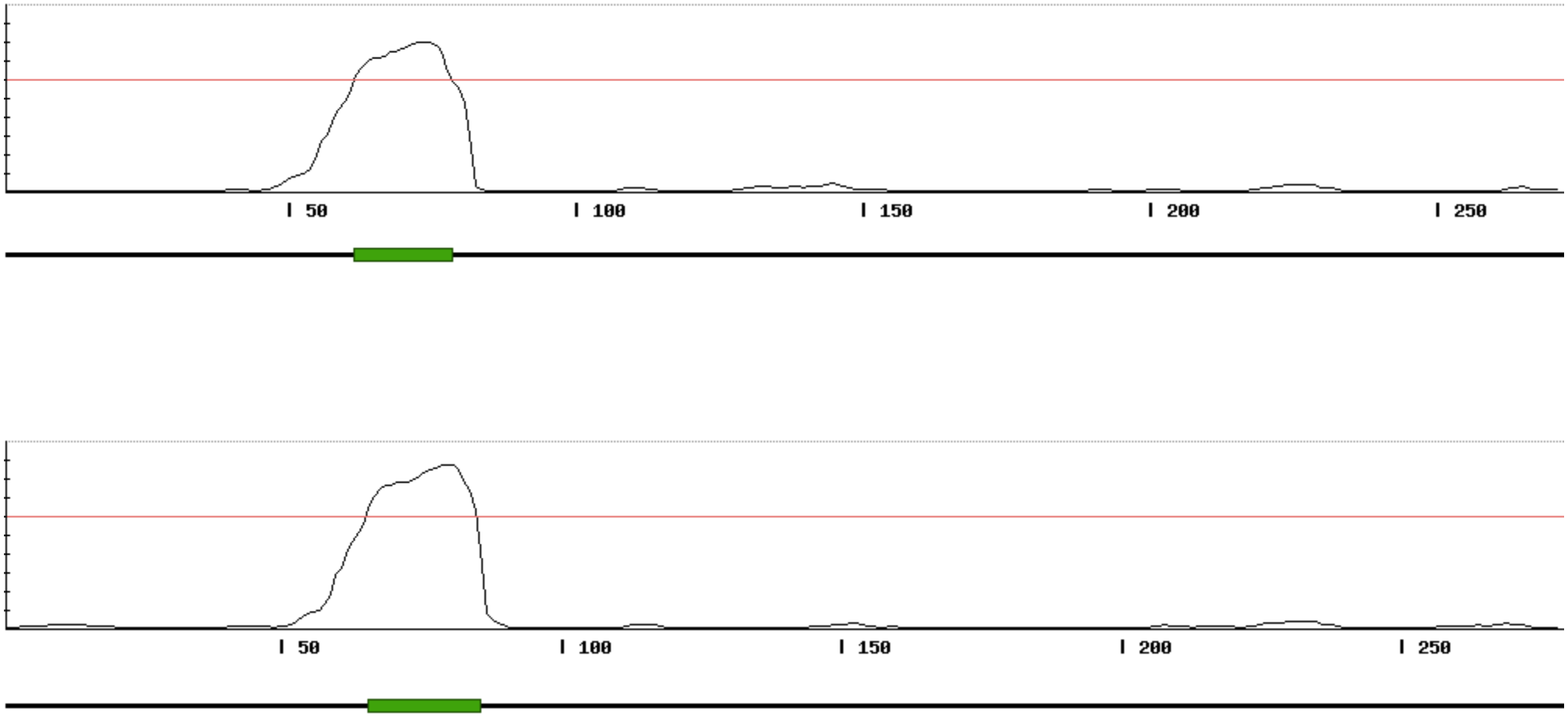


Fig. S14. Nuclear localization signal (NLS) prediction for HvLEA proteins

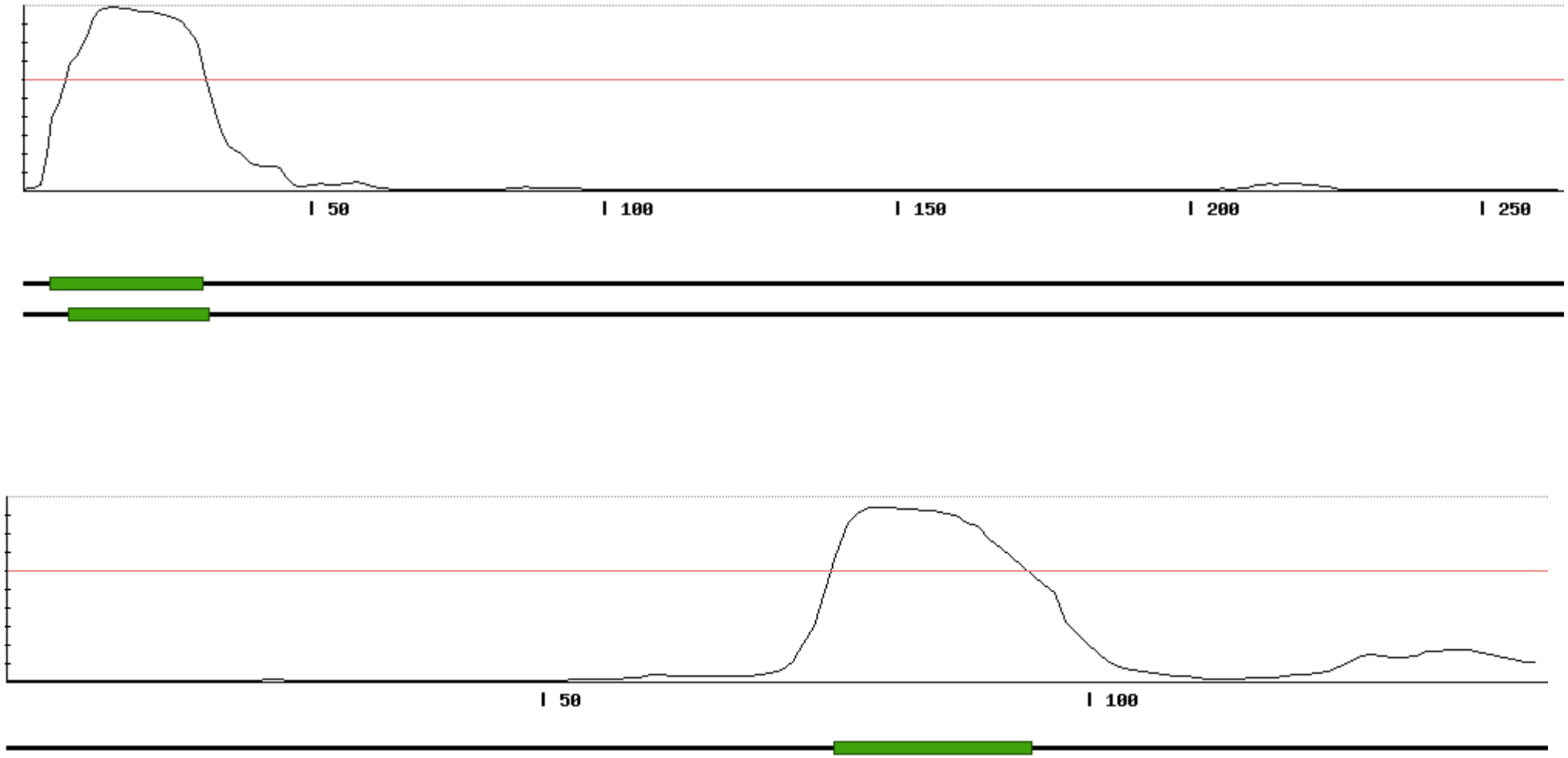


Fig. S15. Nuclear localization signal (NLS) prediction for HvLEA proteins

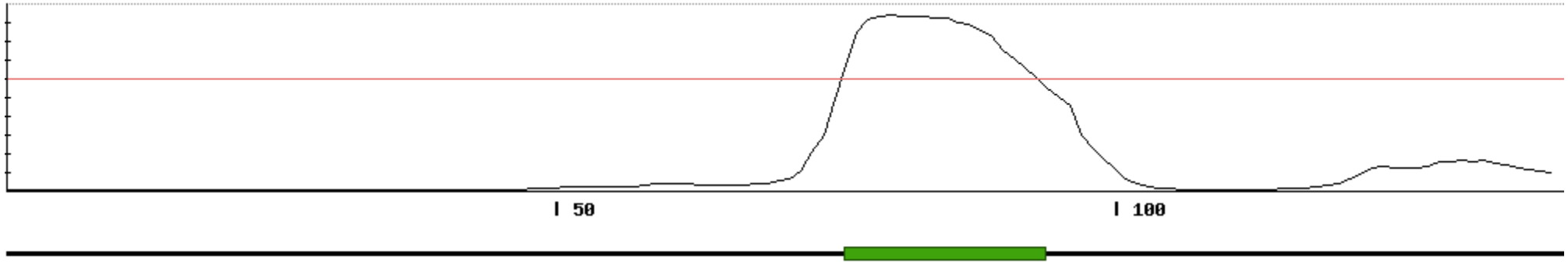


Fig. S16. Nuclear localization signal (NLS) prediction for HvLEA proteins

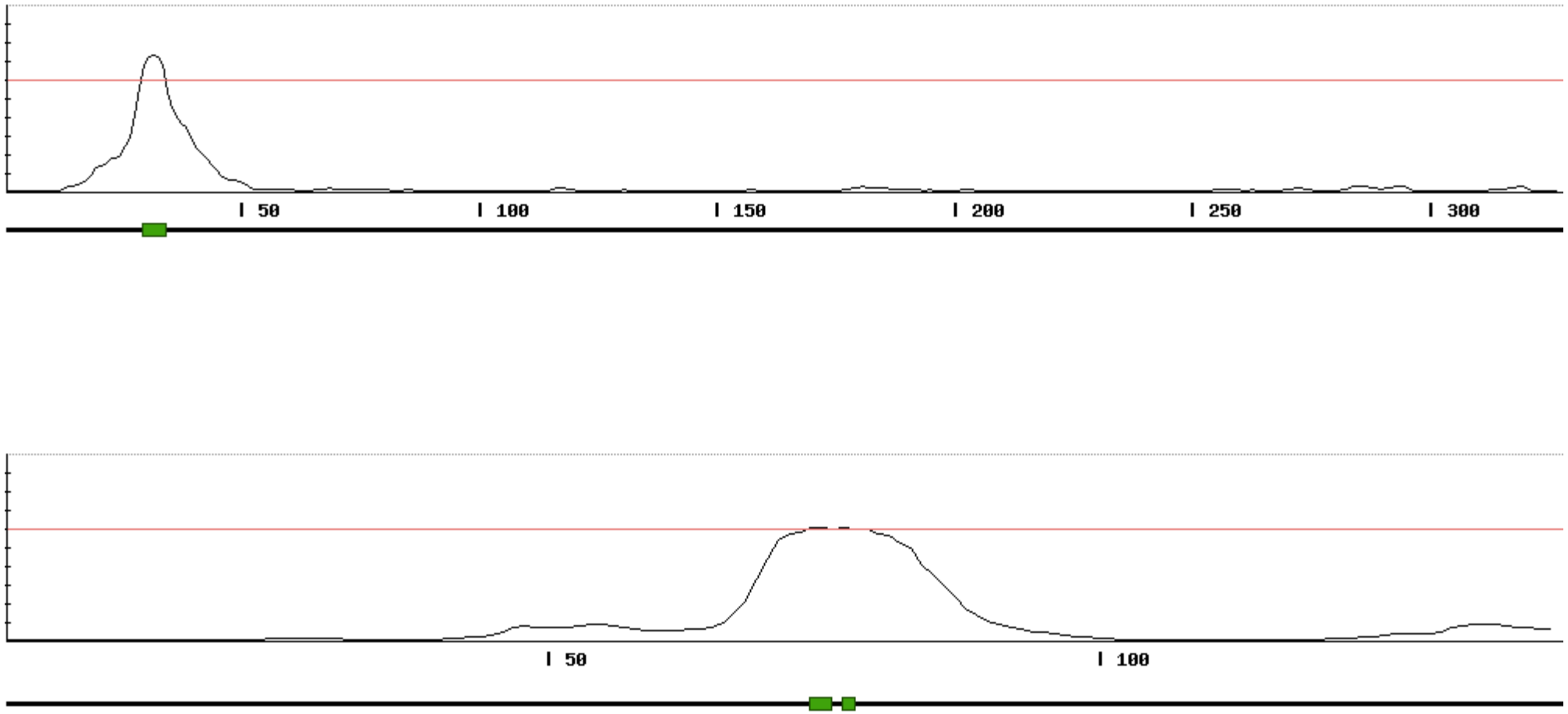


Fig. S17. Nuclear localization signal (NLS) prediction for HvLEA proteins

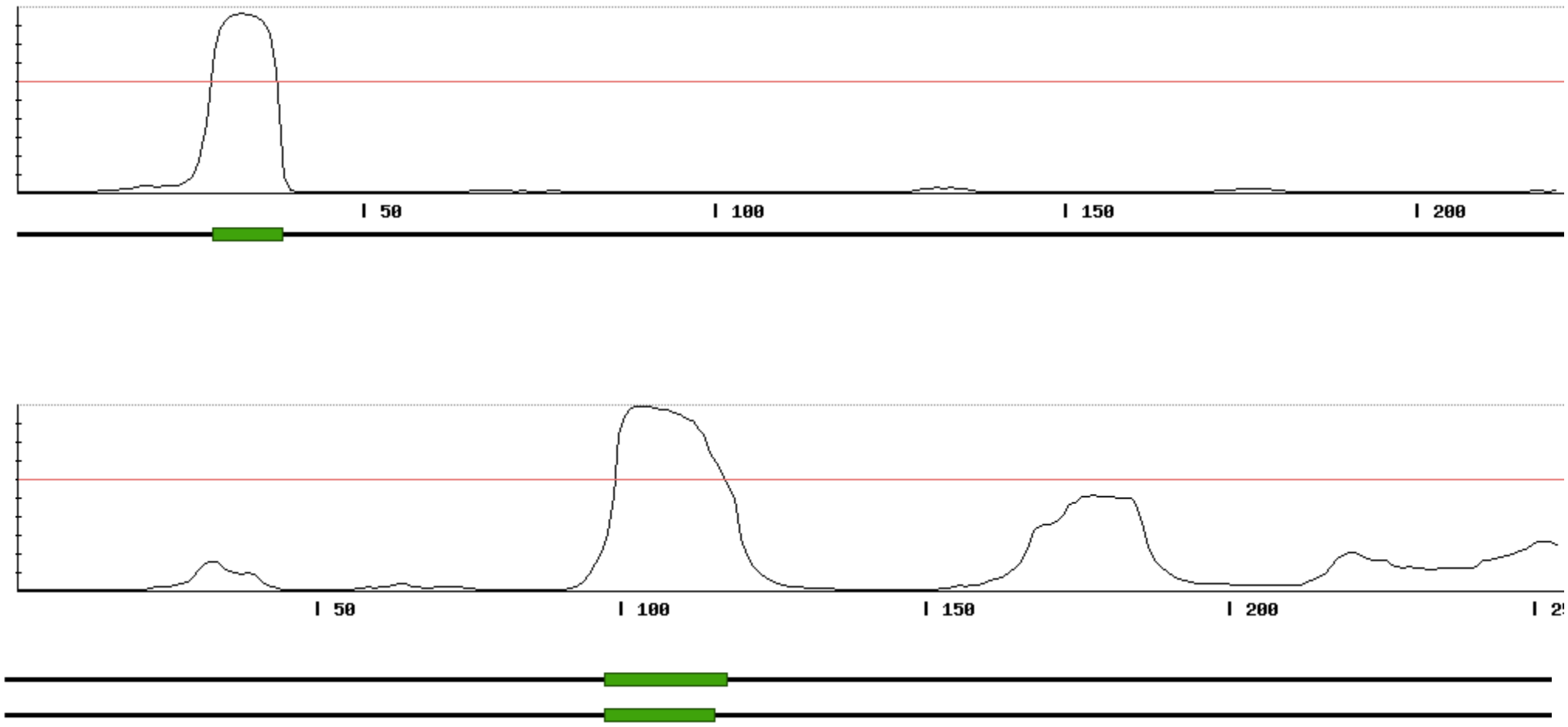


Fig. S18. Nuclear localization signal (NLS) prediction for HvLEA proteins

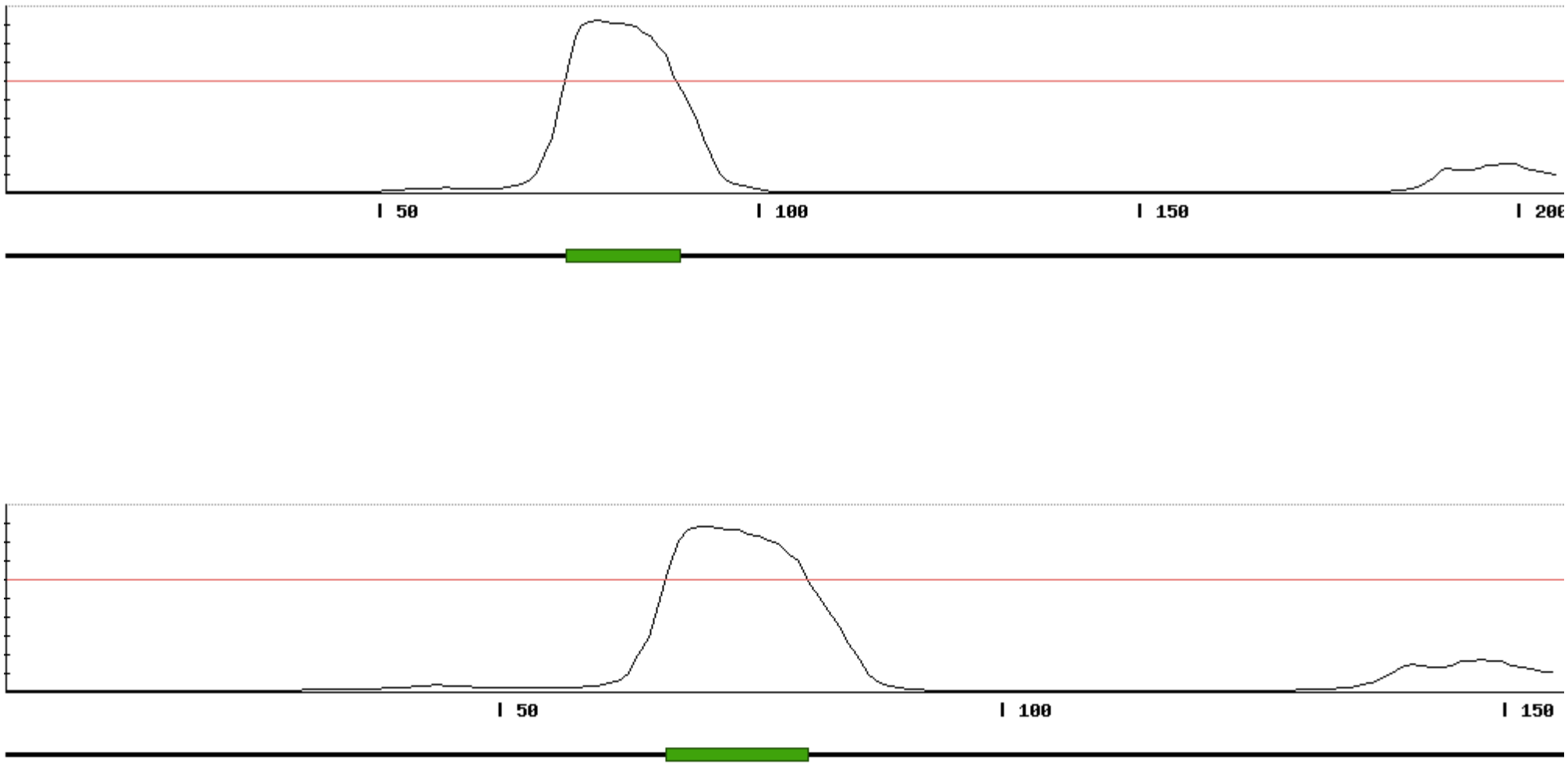


Fig. S19. Nuclear localization signal (NLS) prediction for HvLEA proteins

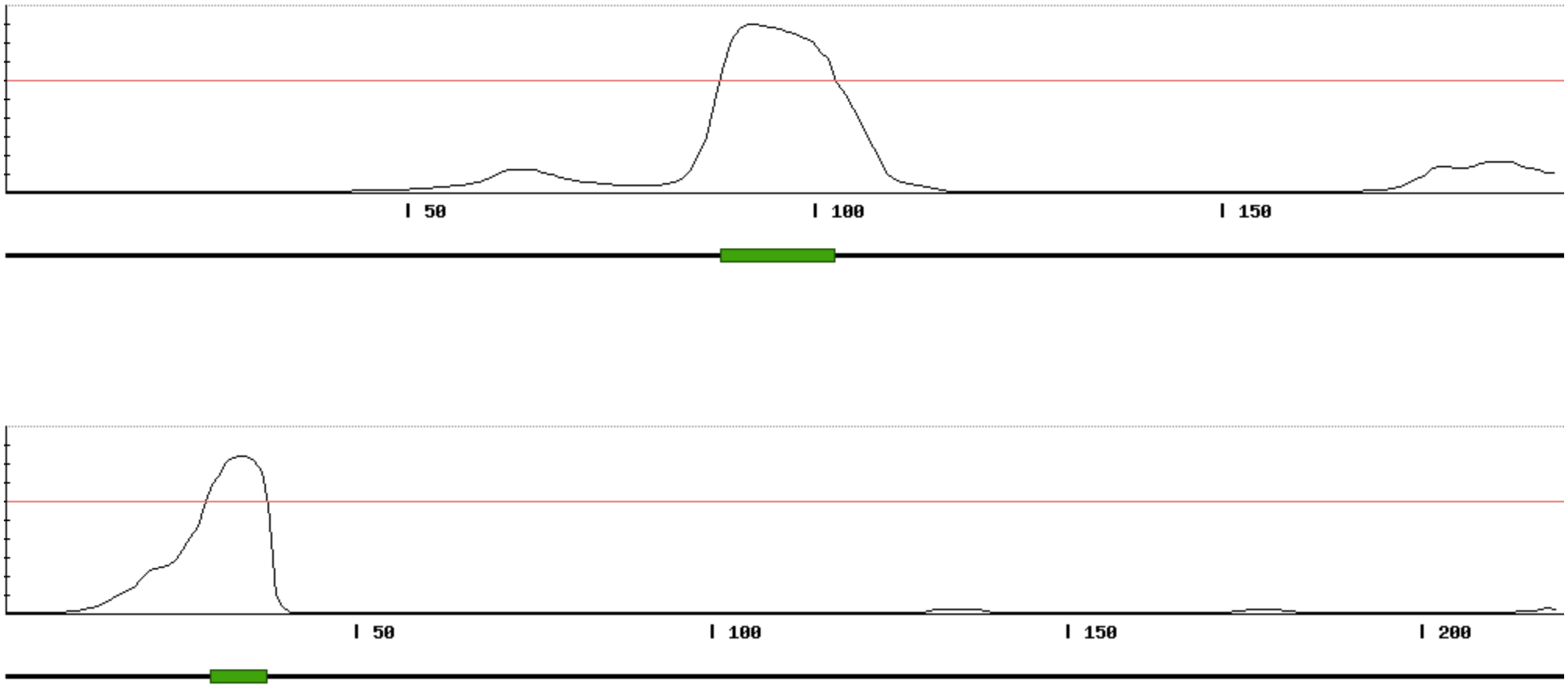
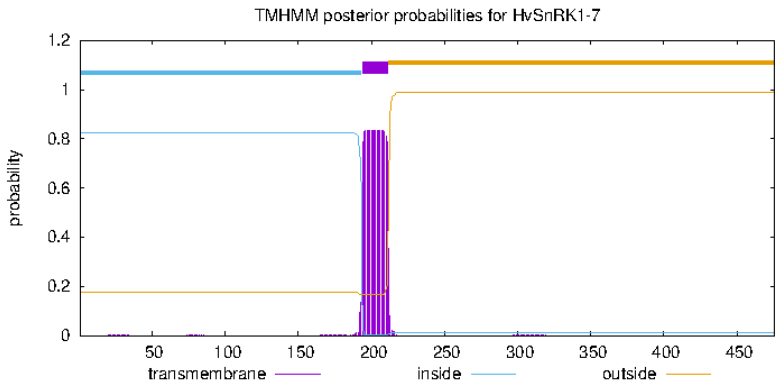
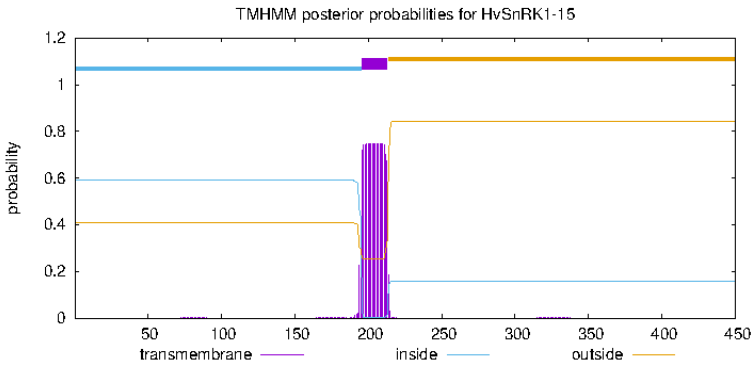


Fig. S20. Nuclear localization signal (NLS) prediction for HvLEA proteins

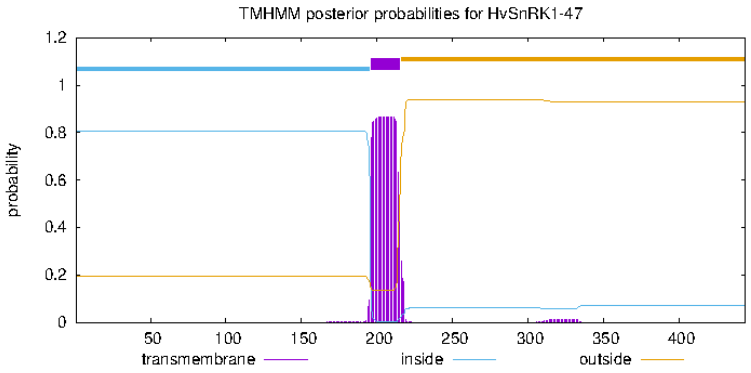
HvSnRK-7



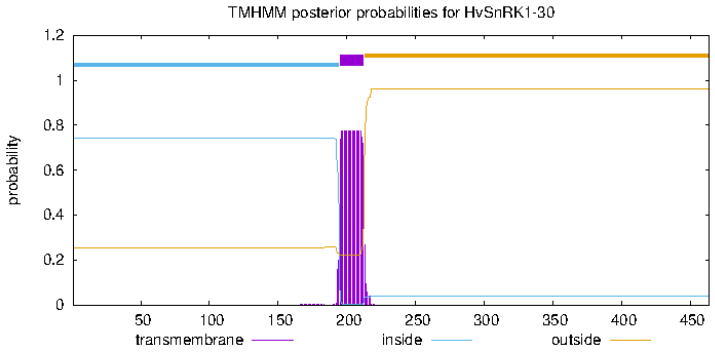
HvSnRK-15



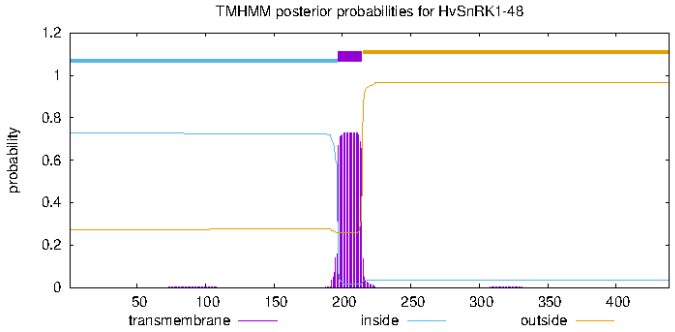
HvSnRK-47



HvSnRK-30



HvSnRK-48



HvSnRK-73

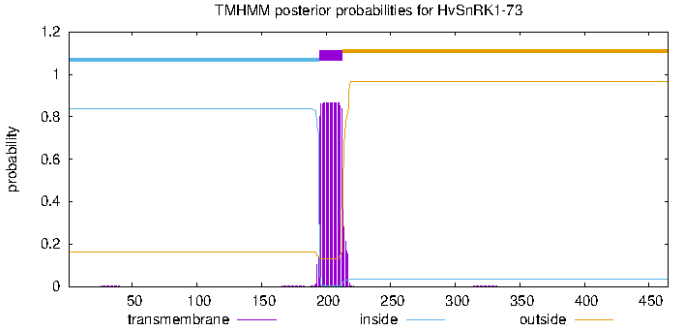
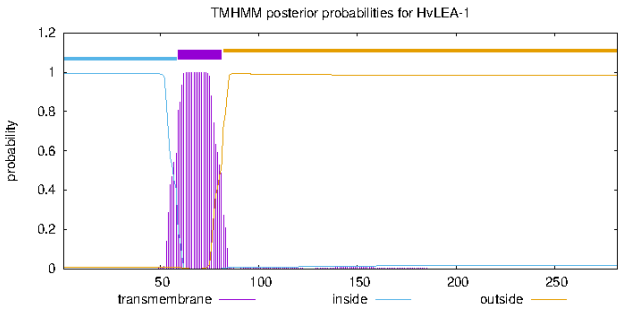
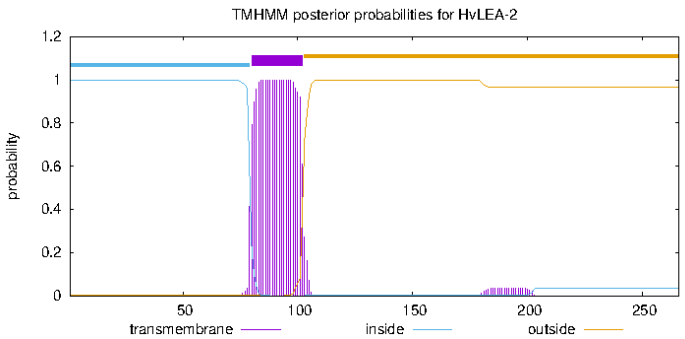
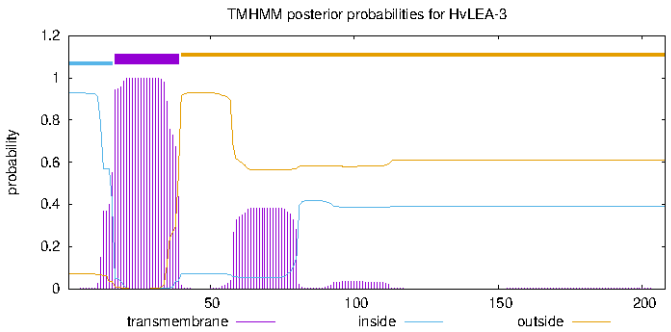


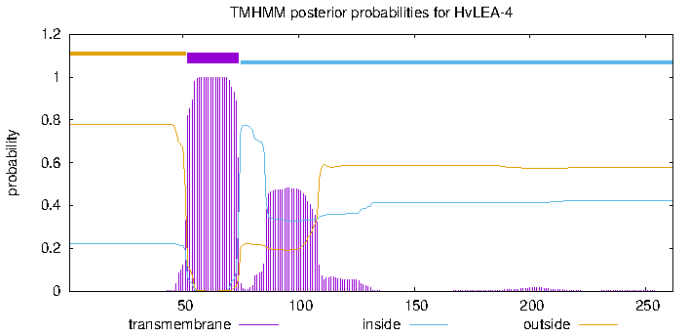
Fig. S21. The transmembrane helical in HvSnRK-7 and HvSnRK-15

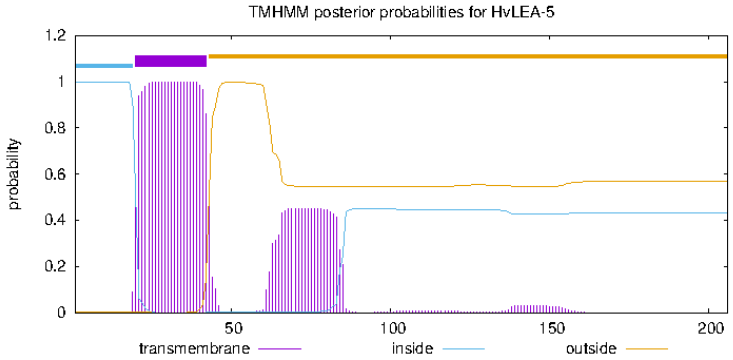
HvLEA-1











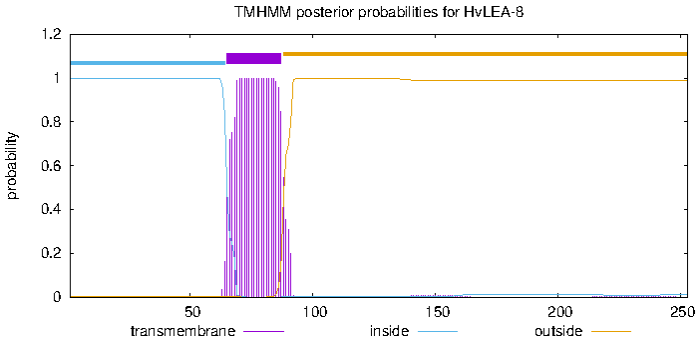


Fig. S22. The transmembrane helical in HvLEA

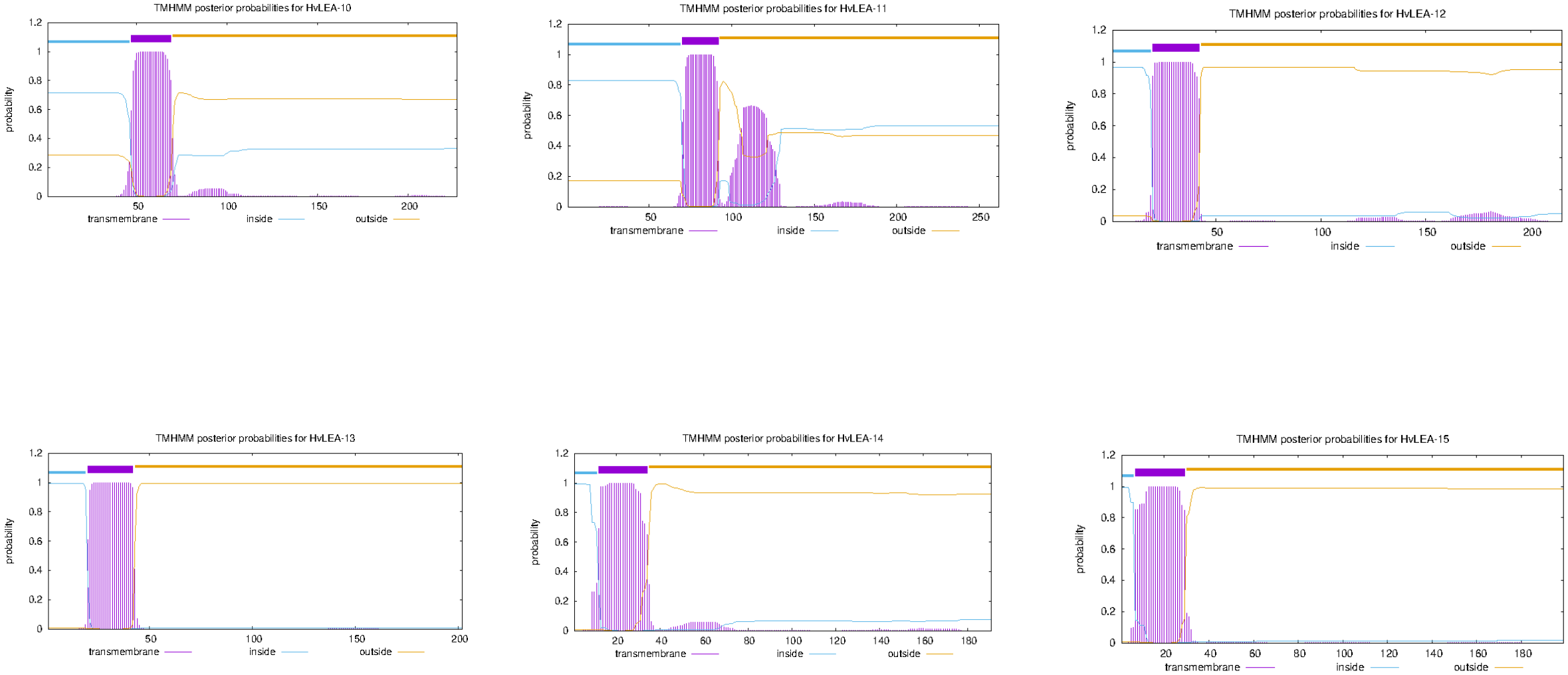


Fig. S23. The transmembrane helical in HvLEA

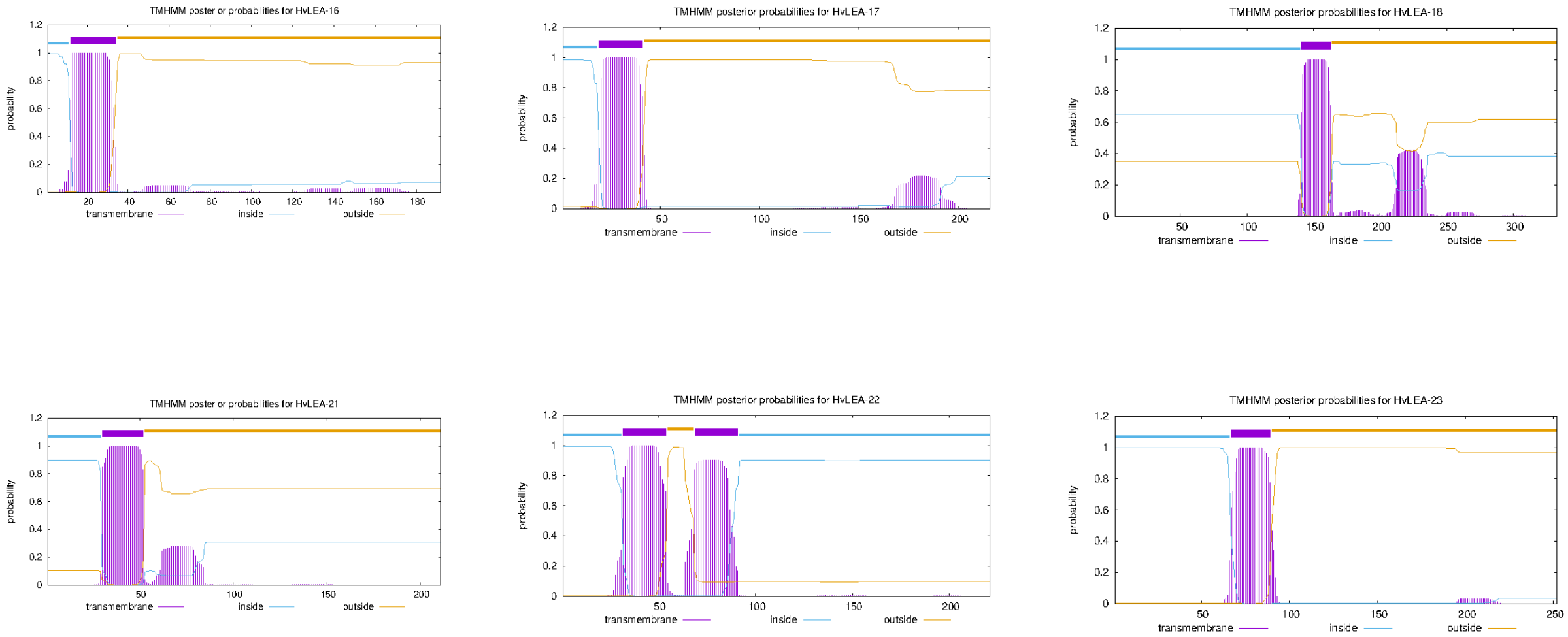
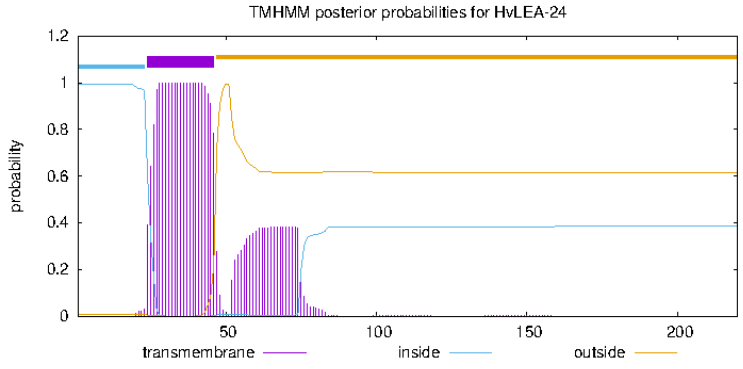
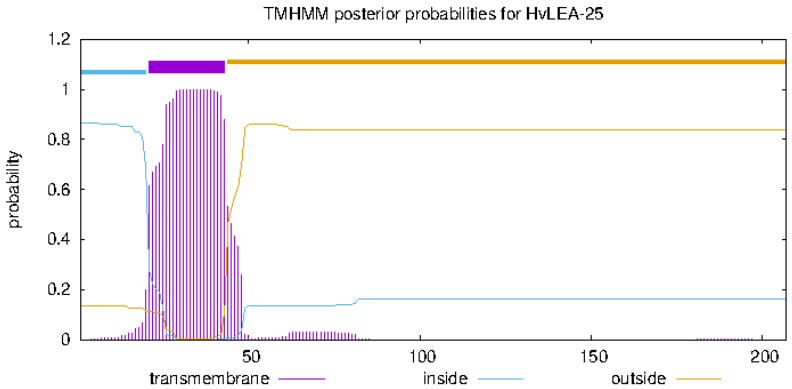
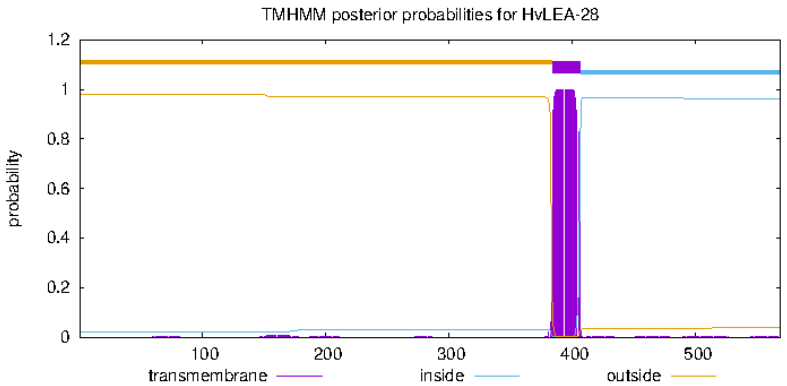
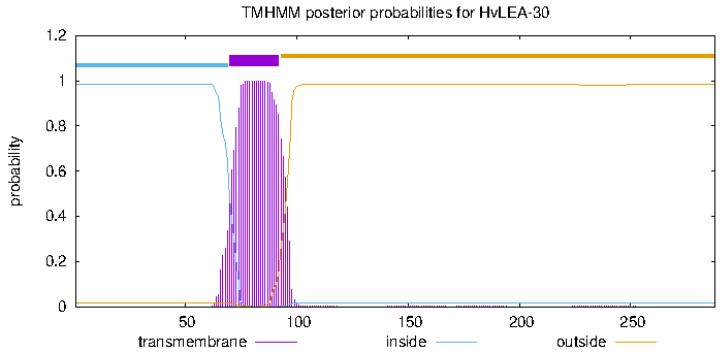


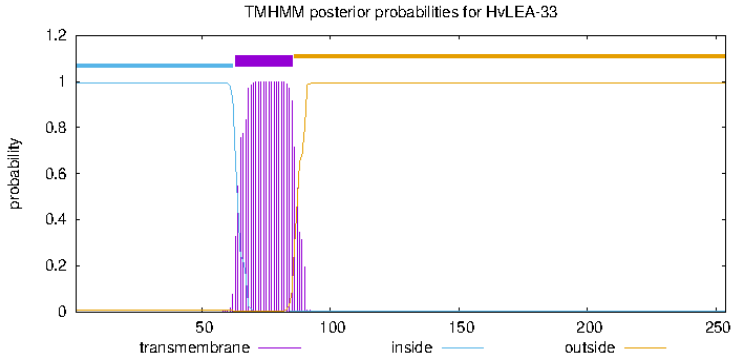
Fig. S24. The transmembrane helical in HvLEA











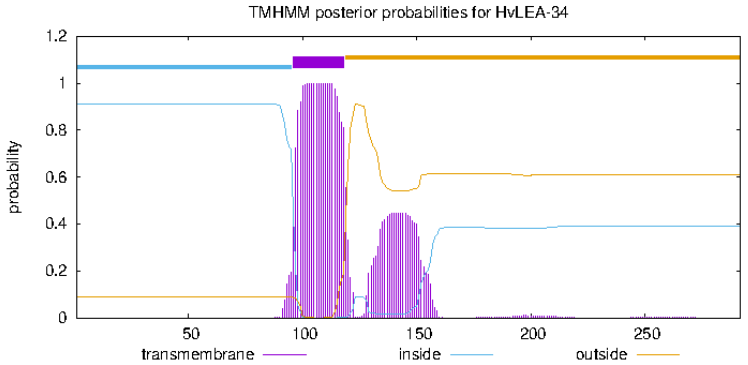


Fig. S25. The transmembrane helical in HvLEA

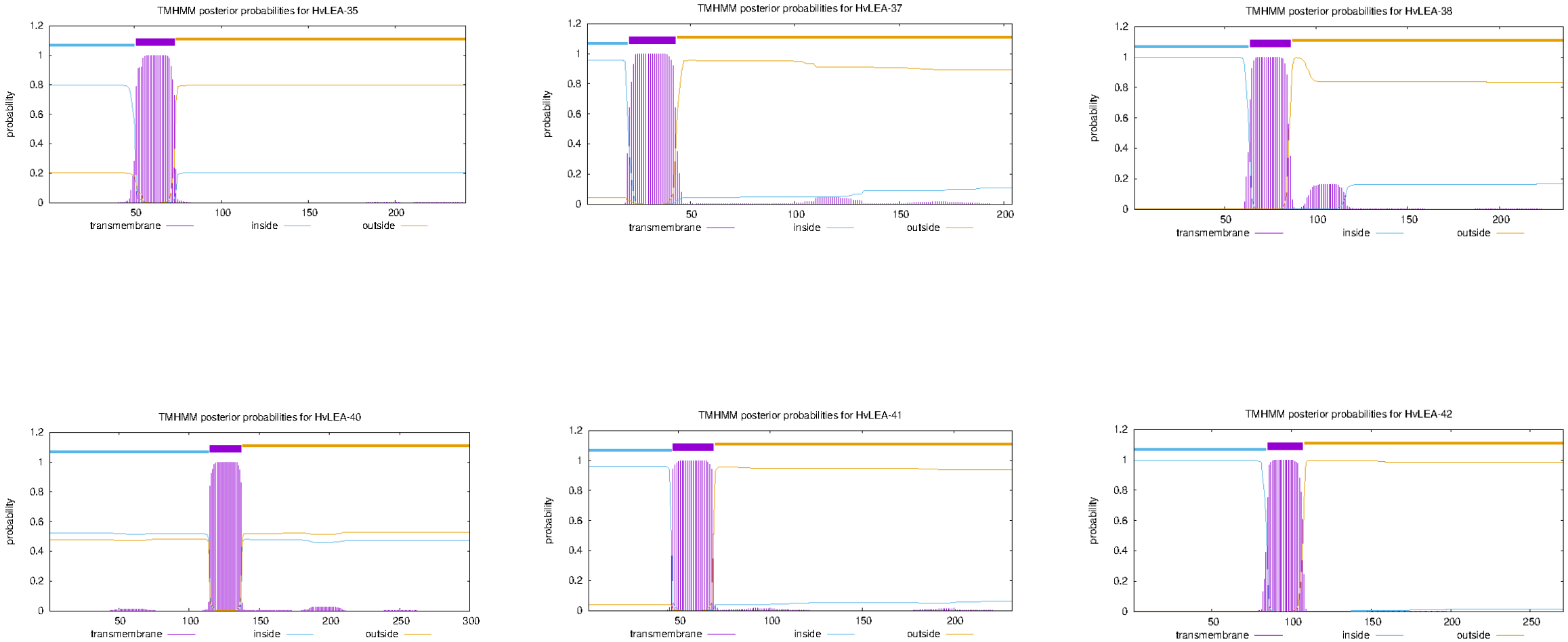
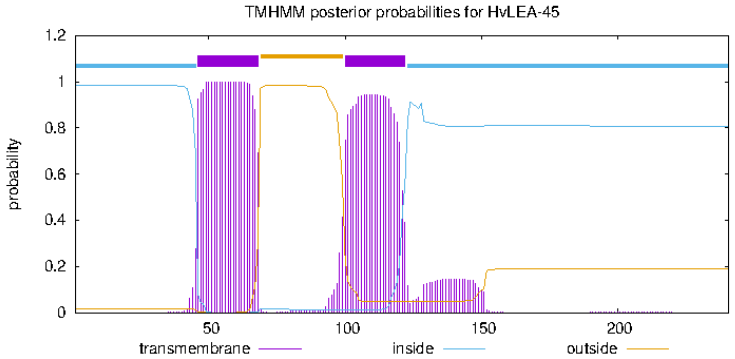
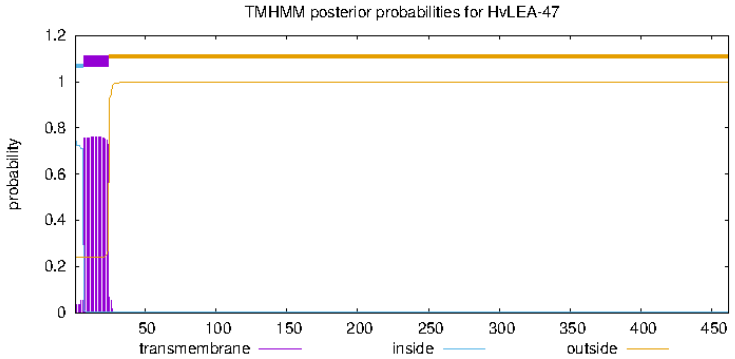
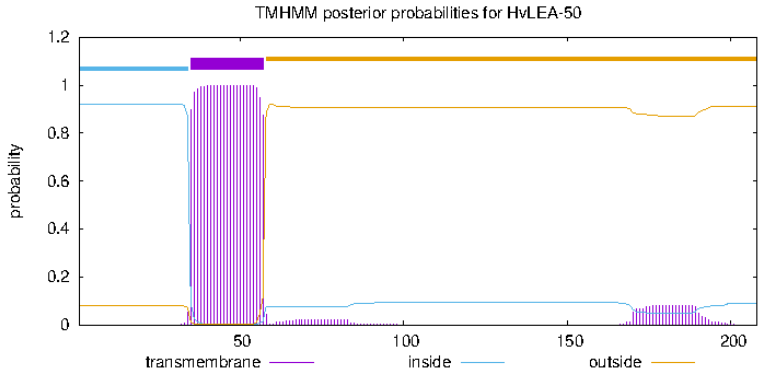
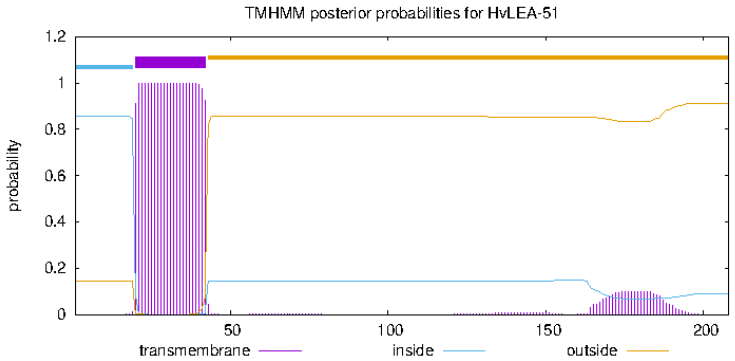


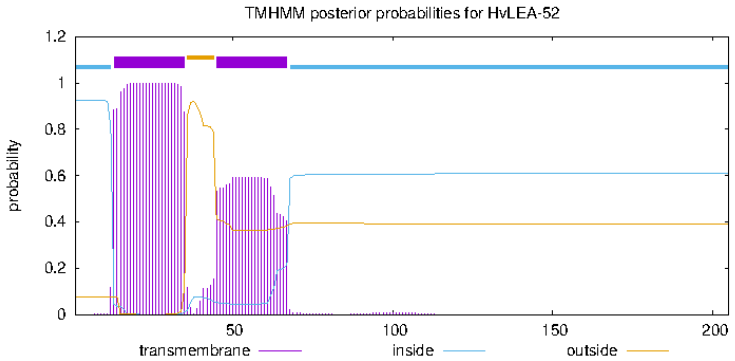
Fig. S26. The transmembrane helical in HvLEA











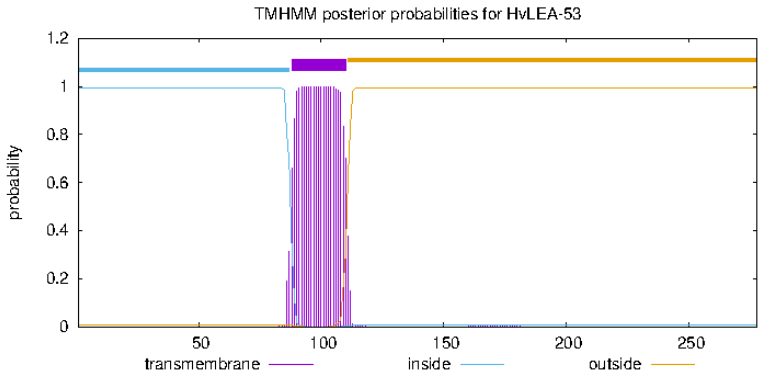


Fig. S27. The transmembrane helical in HvLEA

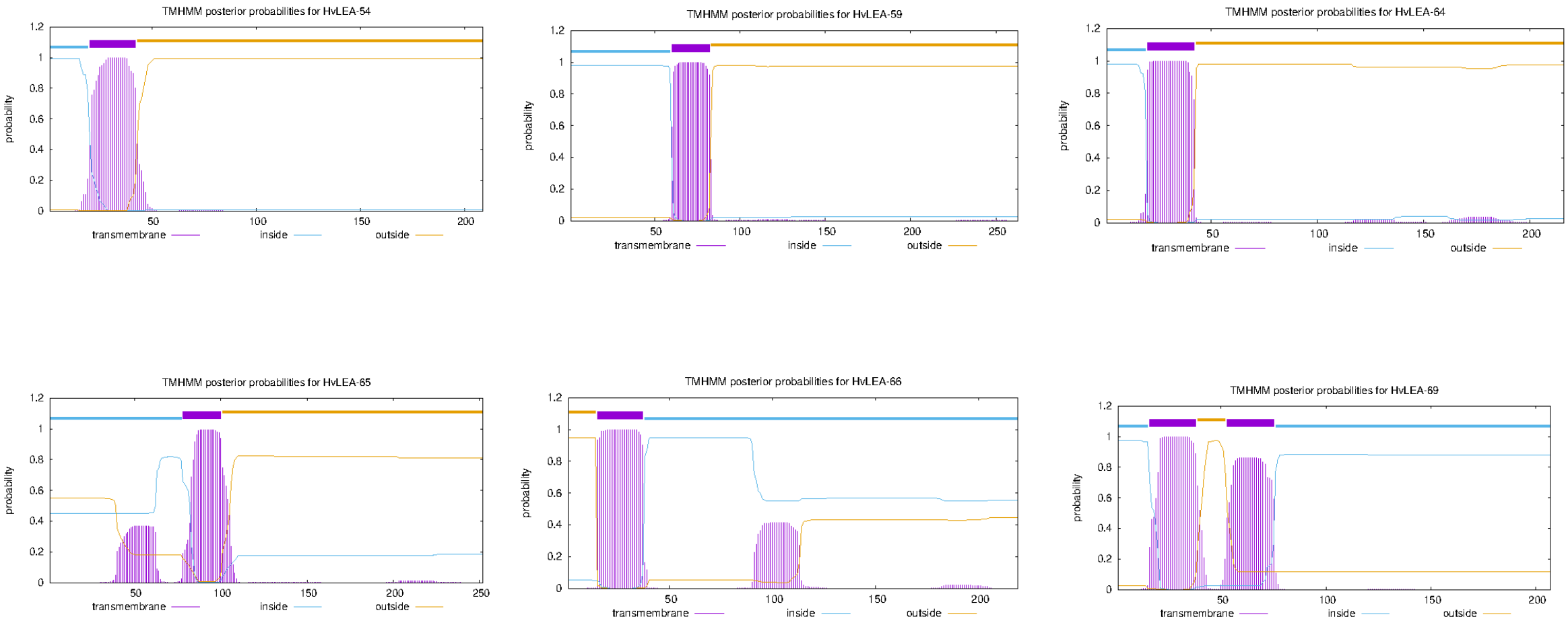


Fig. S28. The transmembrane helical in HvLEA

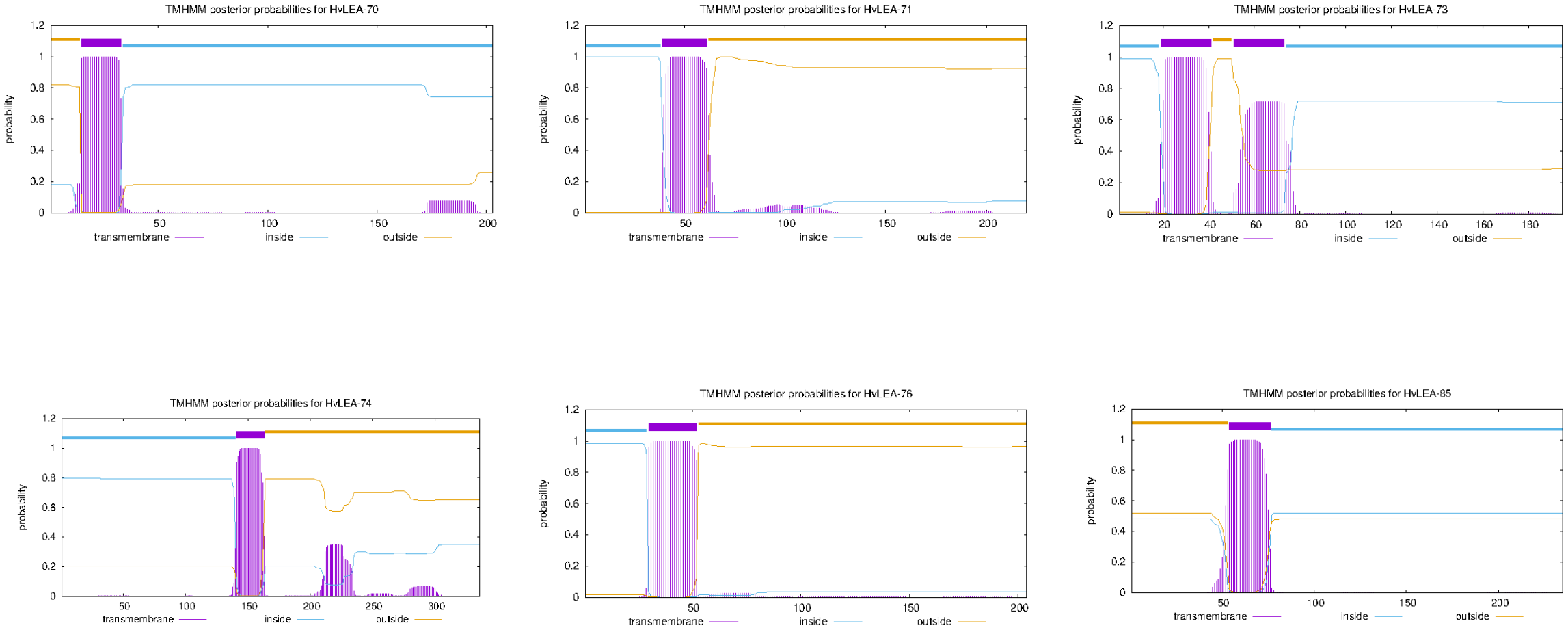
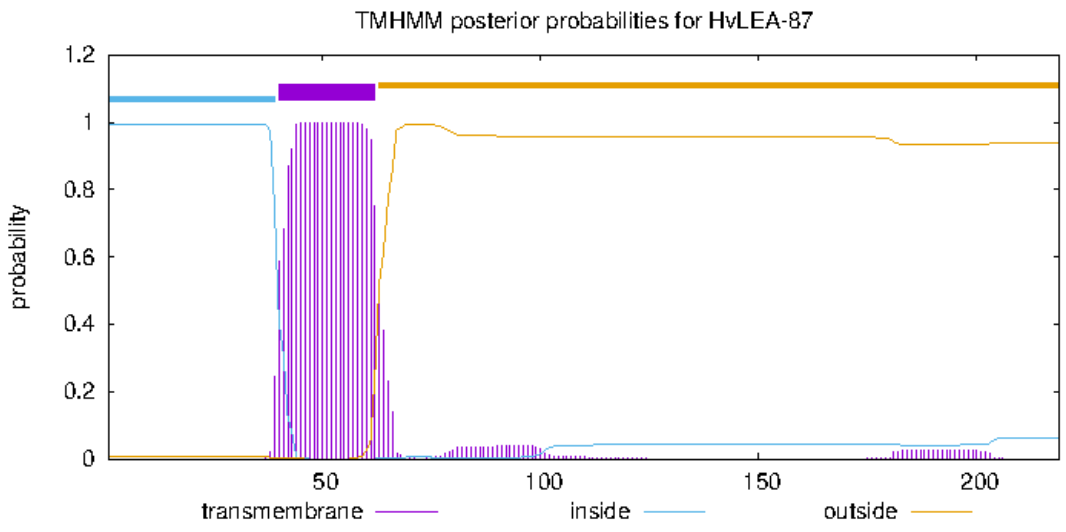
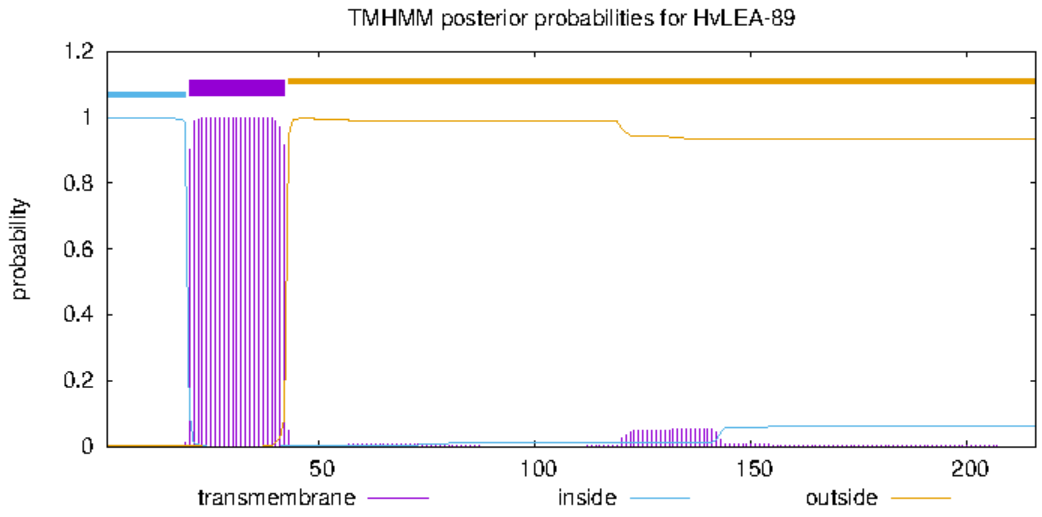
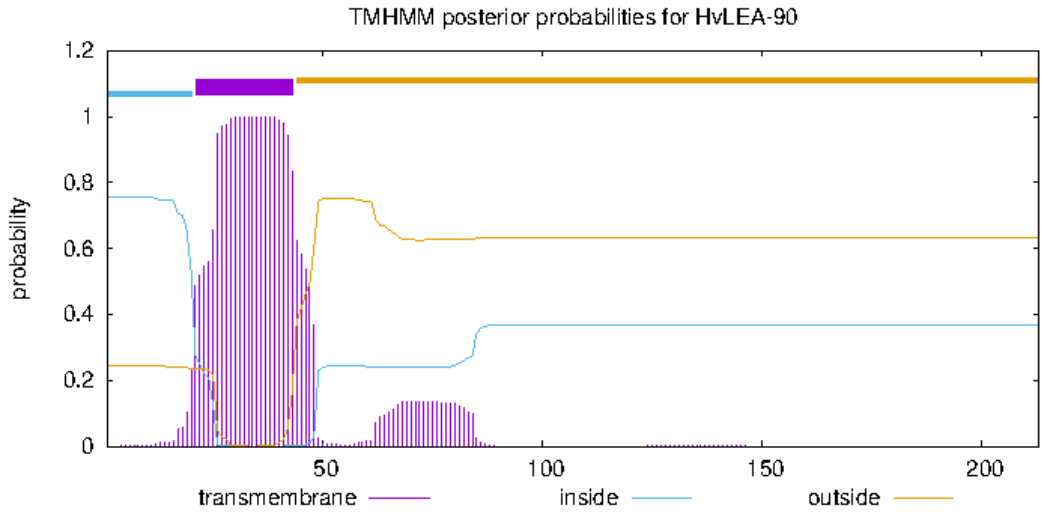


Fig. S29. The transmembrane helical in HvLEA







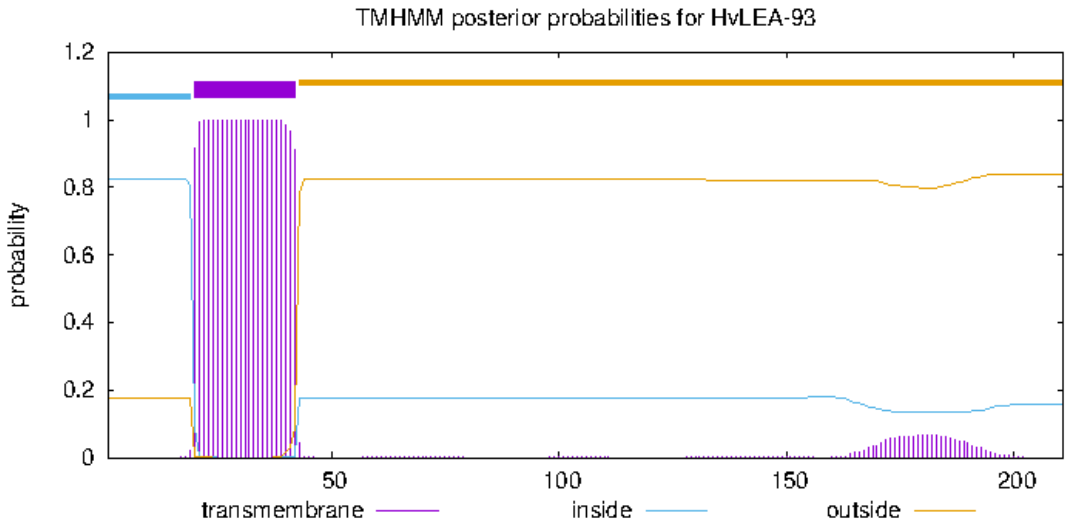
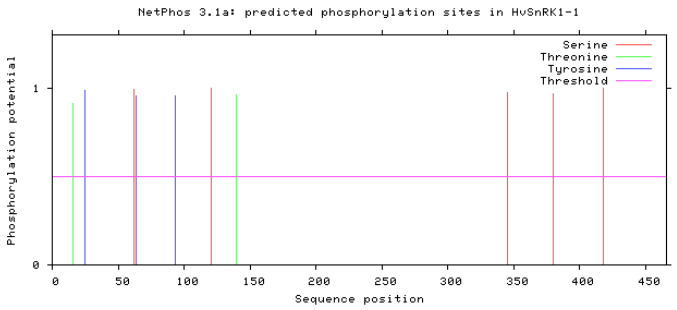
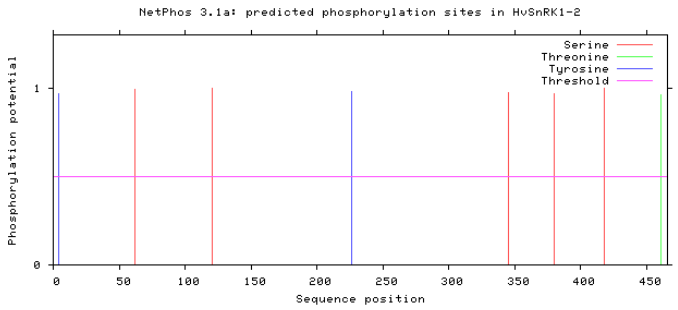


Fig. S30. The transmembrane helical in HvLEA

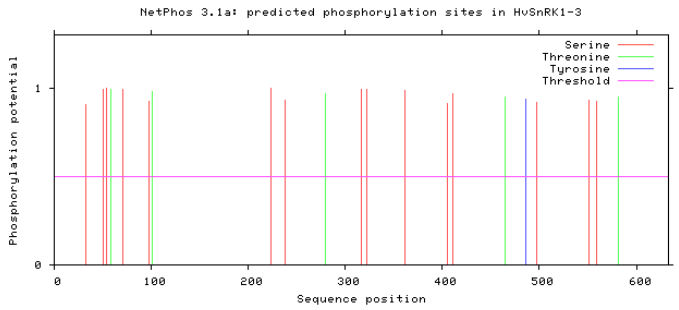
HvSnRK-1



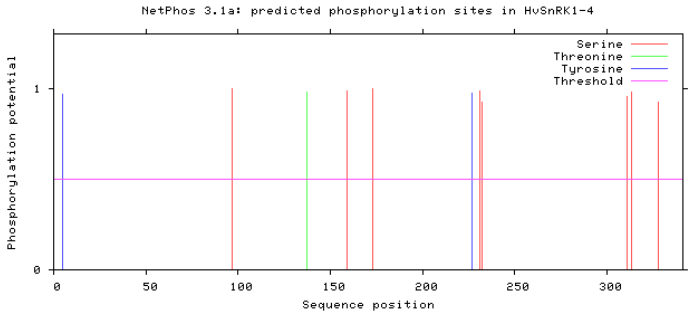
HvSnRK-2



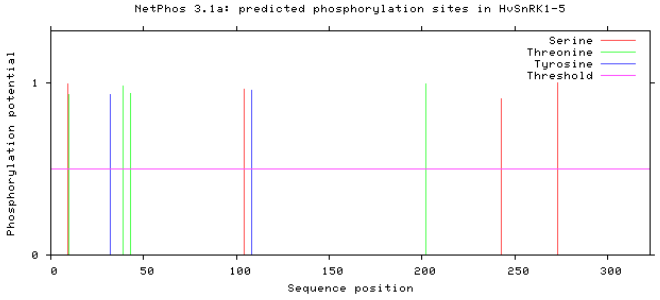
HvSnRK-3



HvSnRK-4



HvSnRK-5



HvSnRK-6

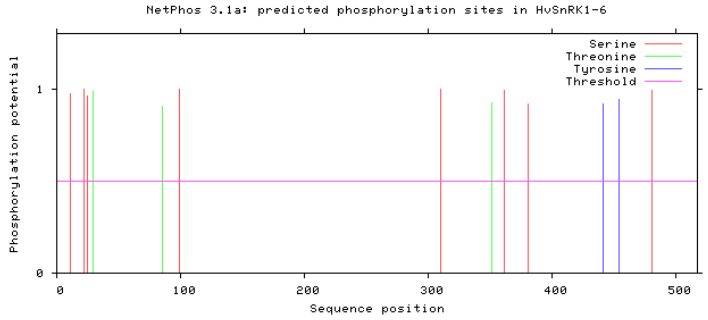
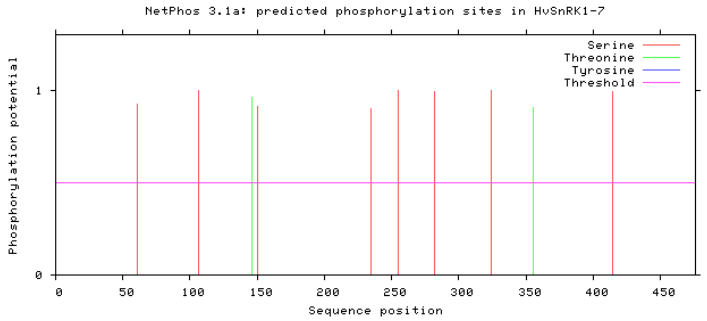
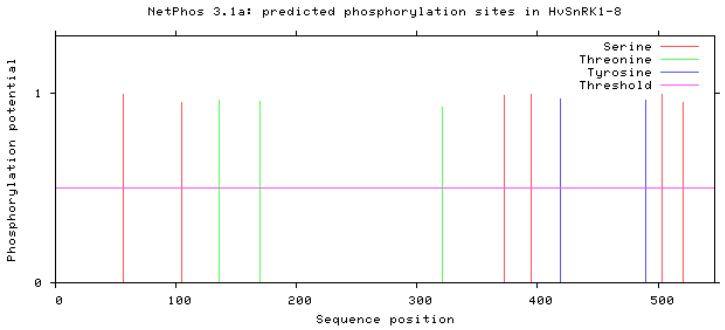


Fig. S31. HvSnRK protein putative phosphorylation with serine, threonine and tyrosine

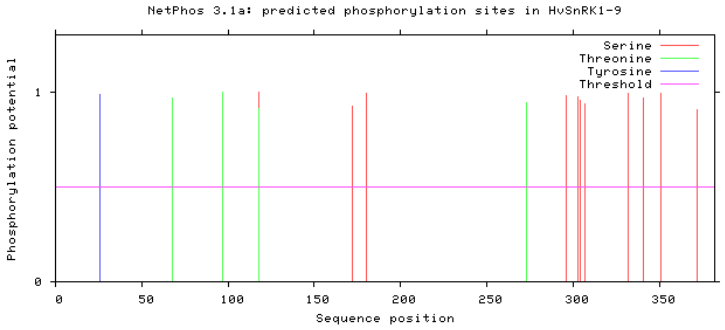
HvSnRK-7



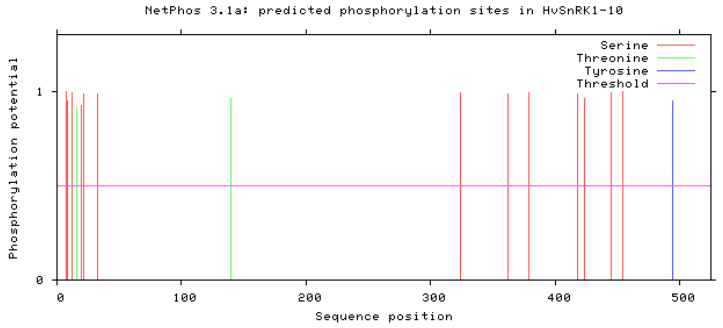
HvSnRK-8



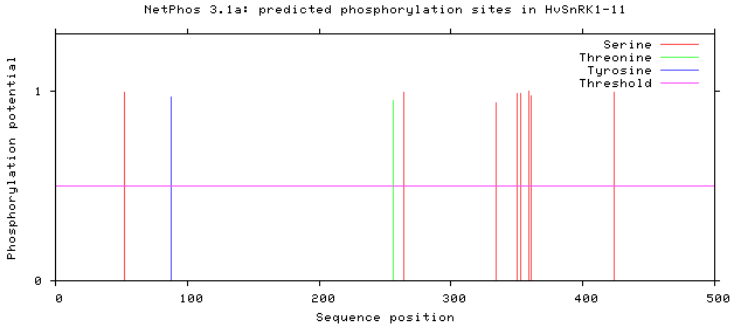
HvSnRK-9



HvSnRK-10



HvSnRK-11



HvSnRK-12

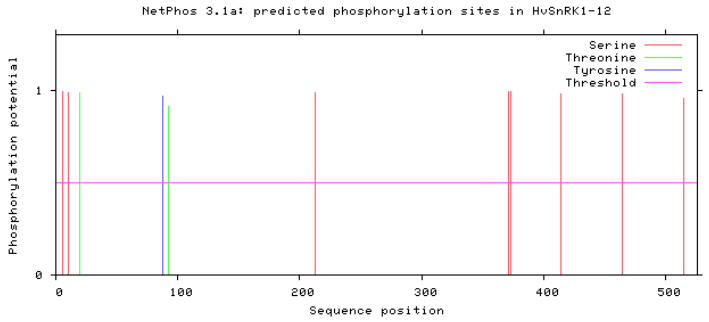
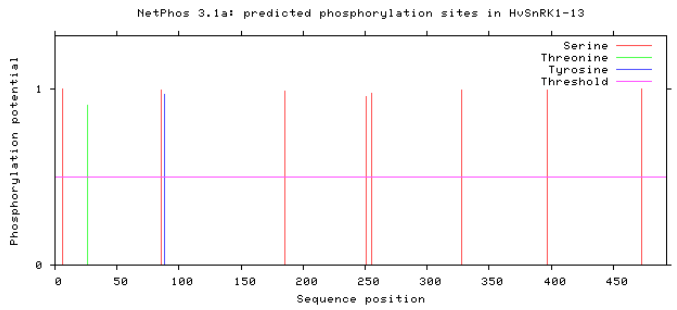
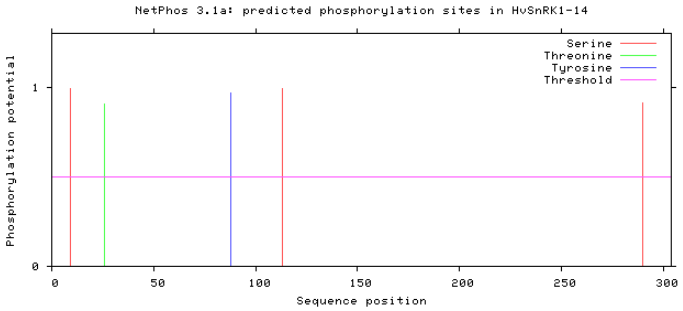


Fig. S32. HvSnRK protein putative phosphorylation with serine, threonine and tyrosine

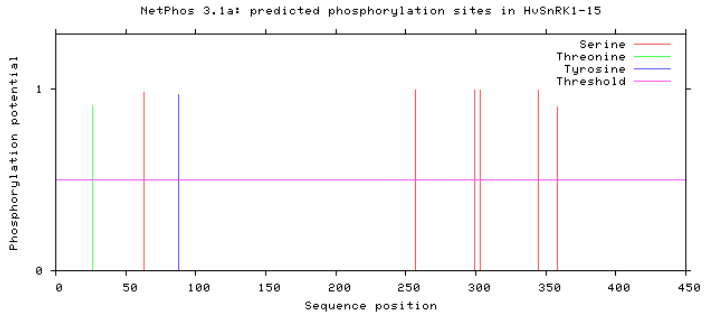
HvSnRK-13



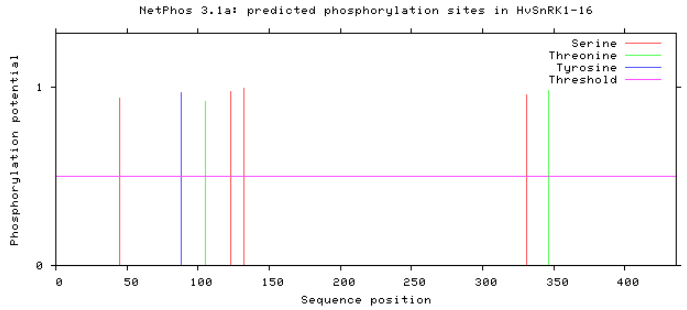
HvSnRK-14



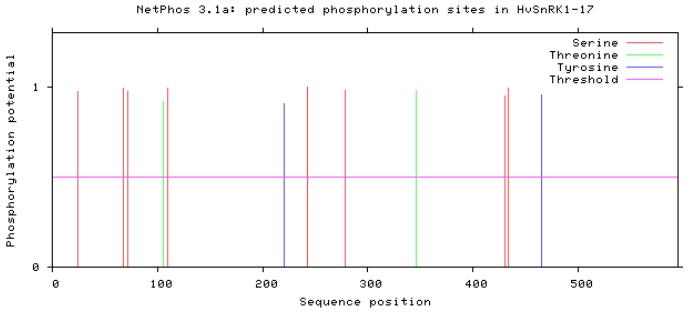
HvSnRK-15



HvSnRK-16



HvSnRK-17



HvSnRK-18

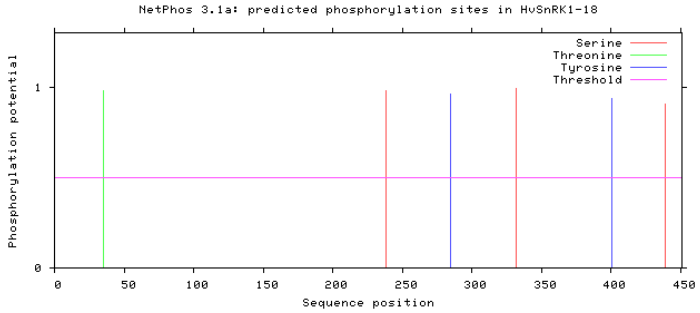
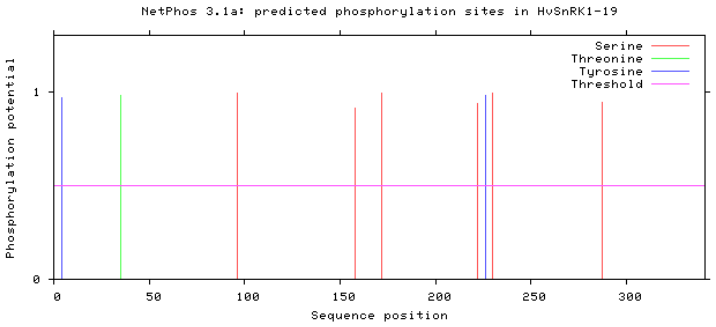
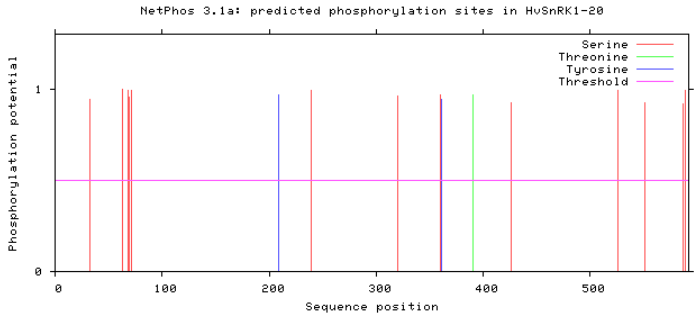


Fig. S33. HvSnRK protein putative phosphorylation with serine, threonine and tyrosine

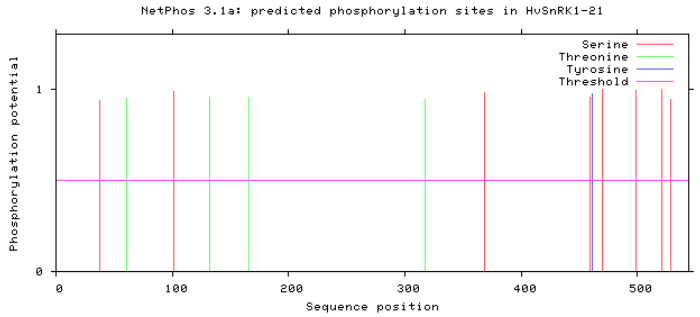
HvSnRK-19



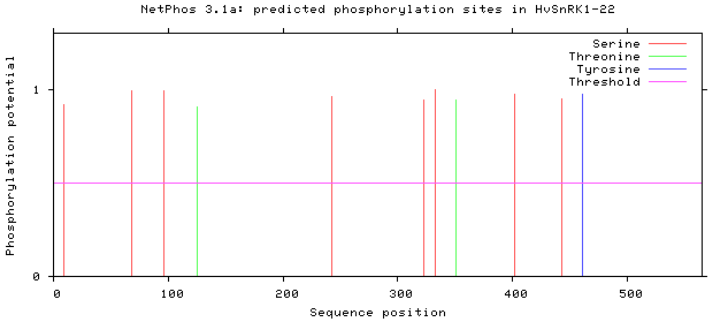
HvSnRK-20



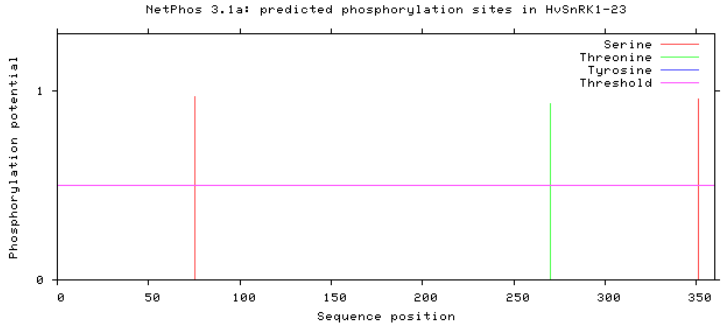
HvSnRK-21



HvSnRK-22



HvSnRK-23



HvSnRK-24

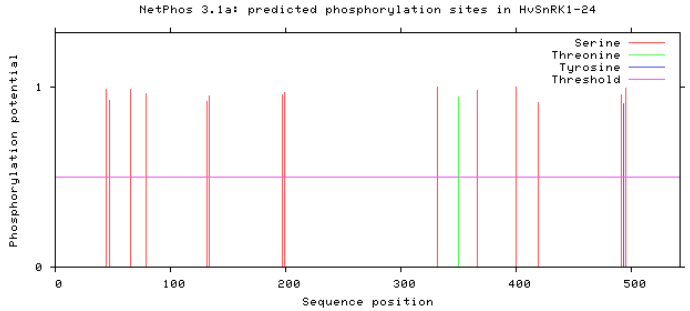
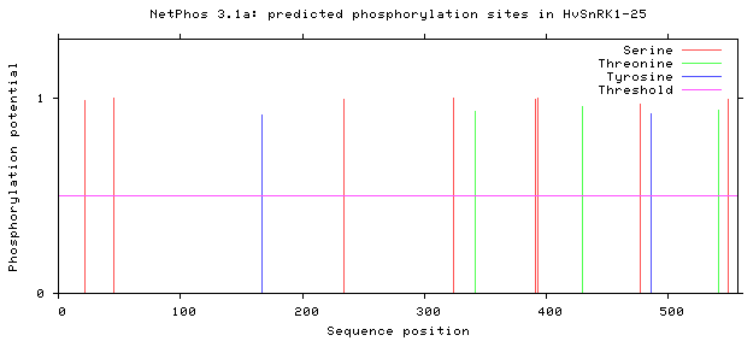
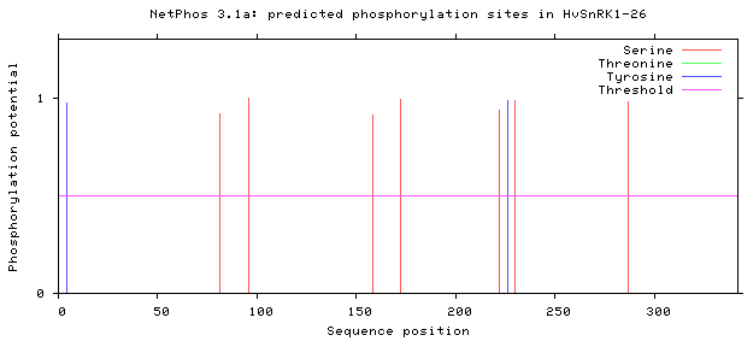


Fig. S34. HvSnRK protein putative phosphorylation with serine, threonine and tyrosine

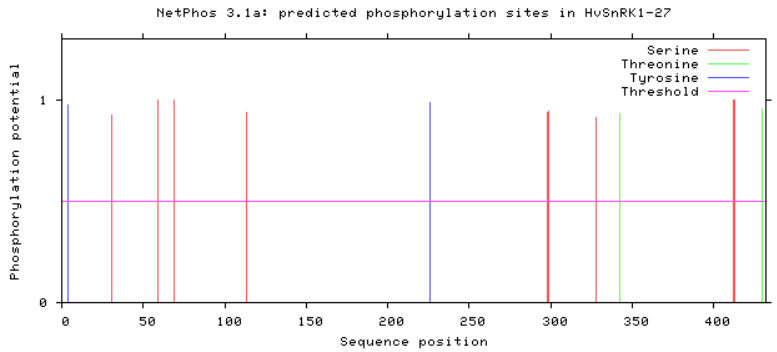
HvSnRK-25



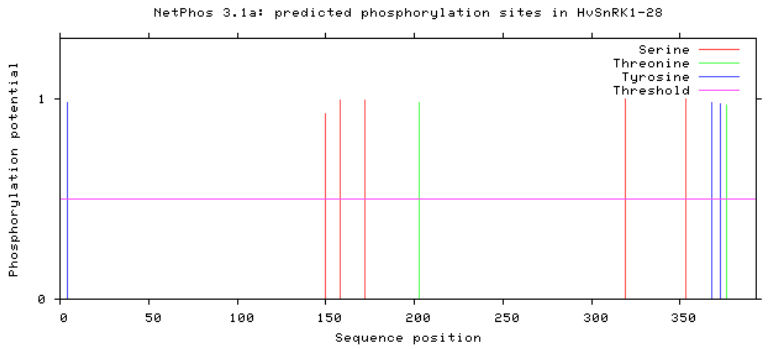
HvSnRK-26



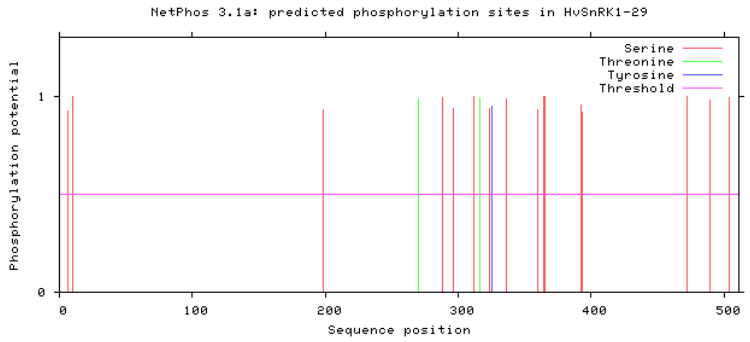
HvSnRK-27



HvSnRK-28



HvSnRK-29



HvSnRK-30

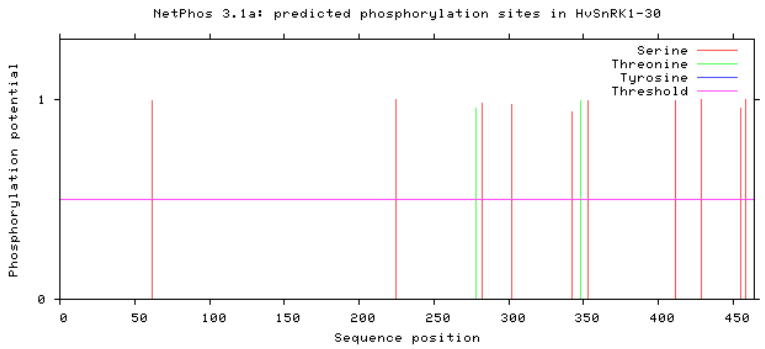
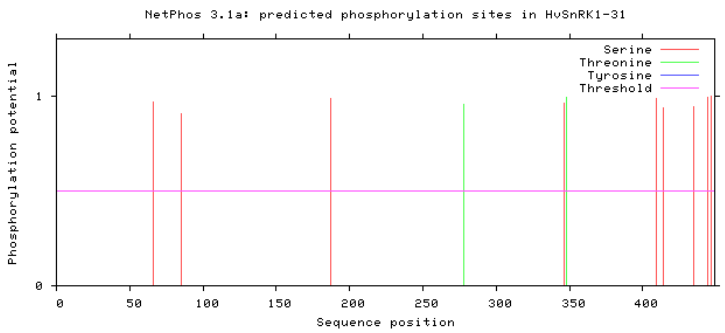
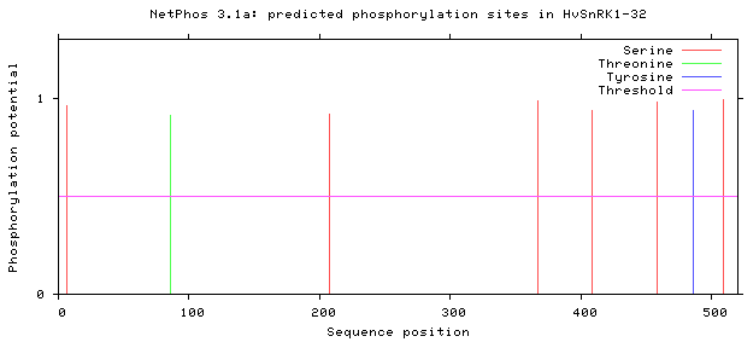


Fig. S35. HvSnRK protein putative phosphorylation with serine, threonine and tyrosine

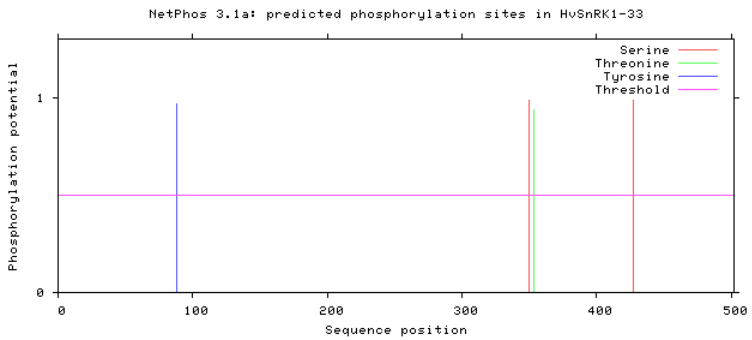
HvSnRK-31



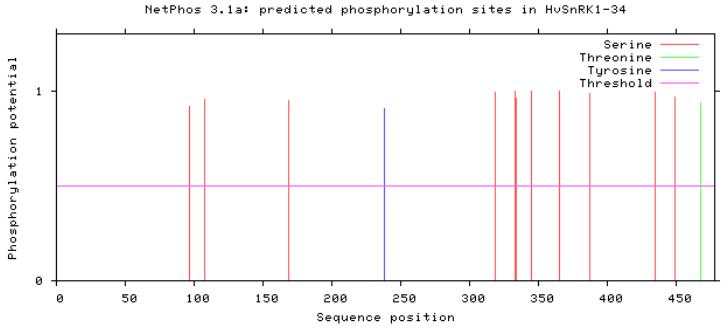
HvSnRK-32



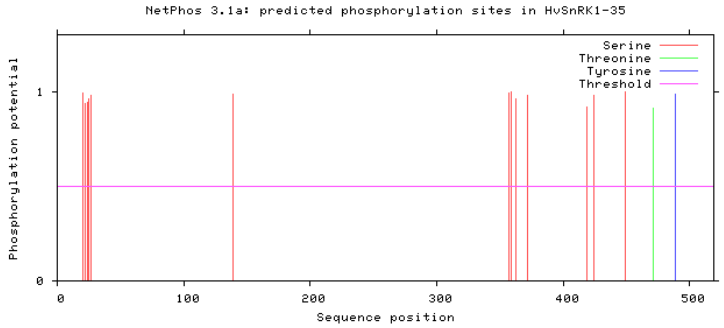
HvSnRK-33



HvSnRK-34



HvSnRK-35



HvSnRK-36

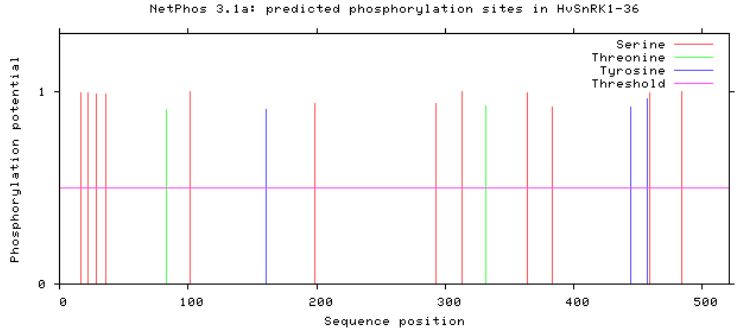
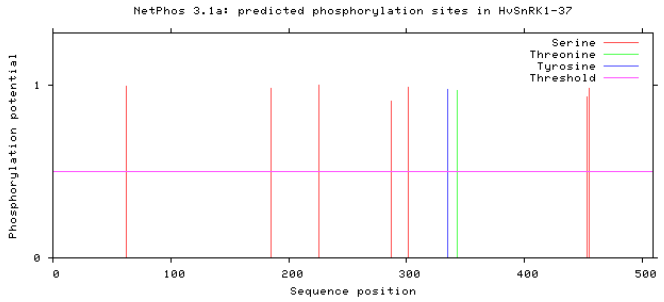
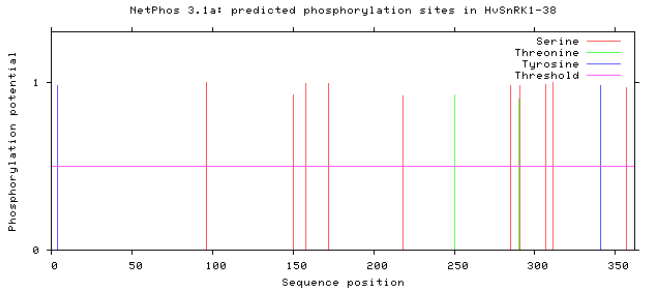


Fig. S36. HvSnRK protein putative phosphorylation with serine, threonine and tyrosine

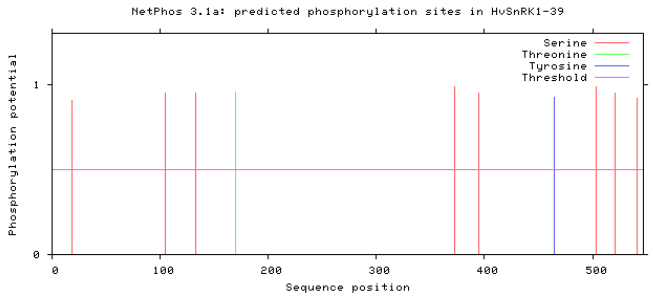
HvSnRK-37



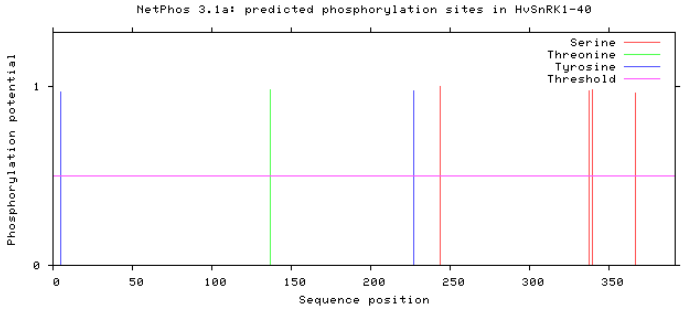
HvSnRK-38



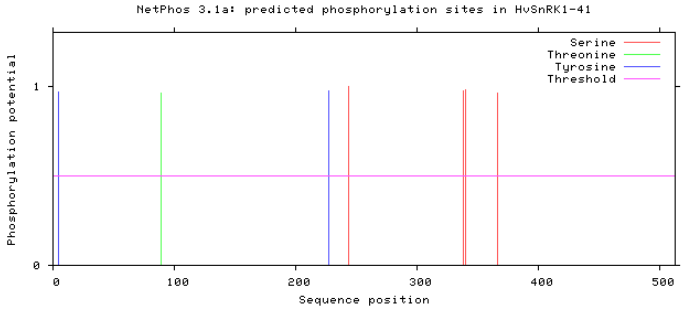
HvSnRK-39



HvSnRK-40



HvSnRK-41



HvSnRK-42

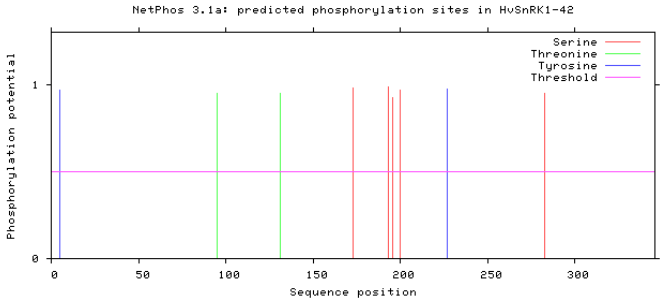
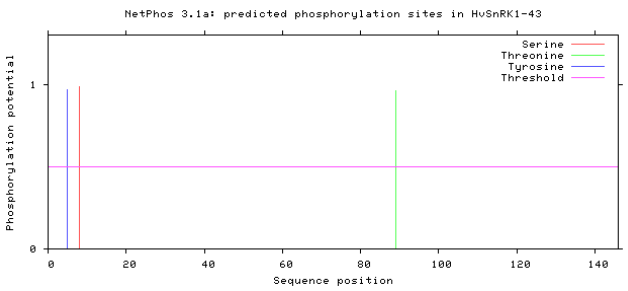
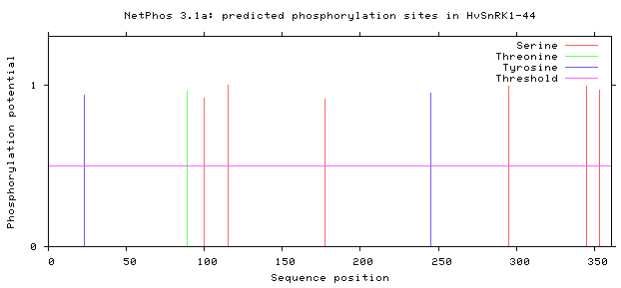


Fig. S37. HvSnRK protein putative phosphorylation with serine, threonine and tyrosine

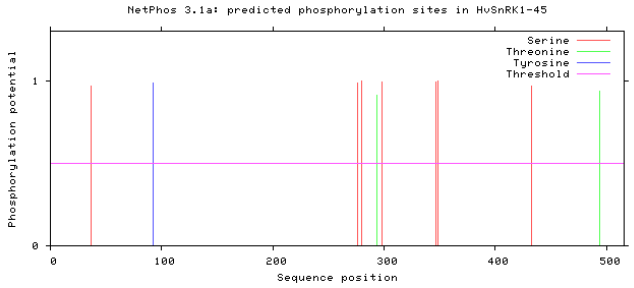
HvSnRK-43



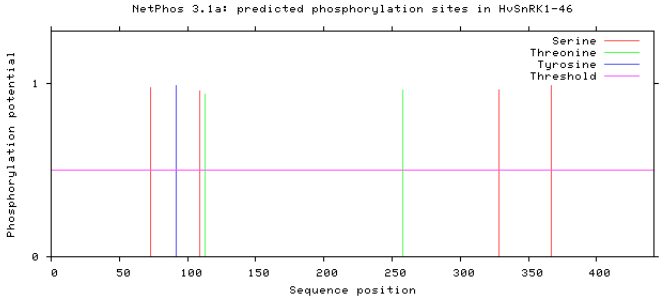
HvSnRK-44



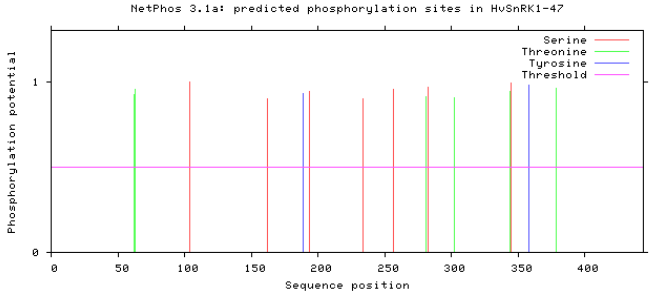
HvSnRK-45



HvSnRK-46



HvSnRK-47



HvSnRK-48

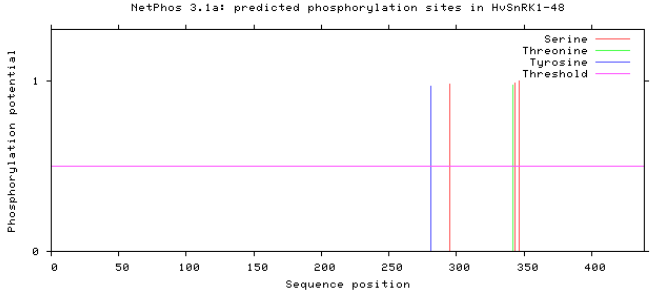
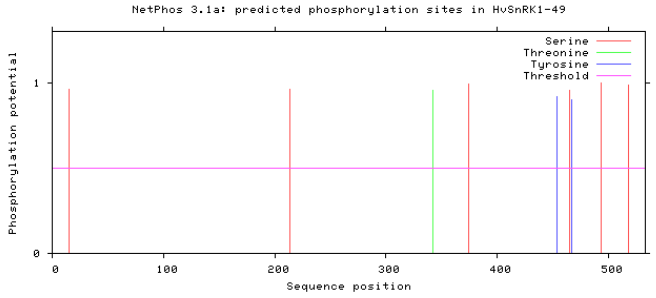
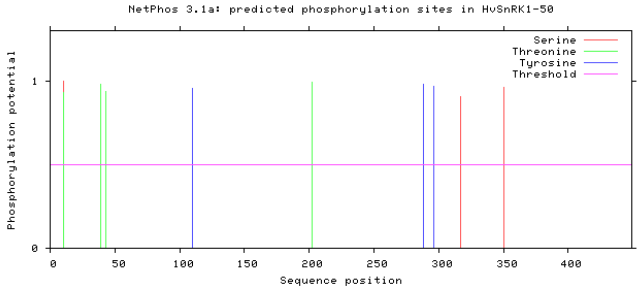


Fig. S38. HvSnRK protein putative phosphorylation with serine, threonine and tyrosine

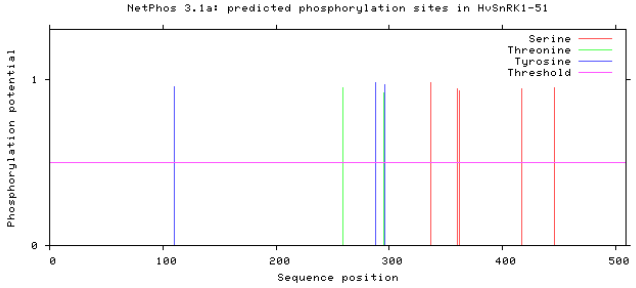
HvSnRK-49



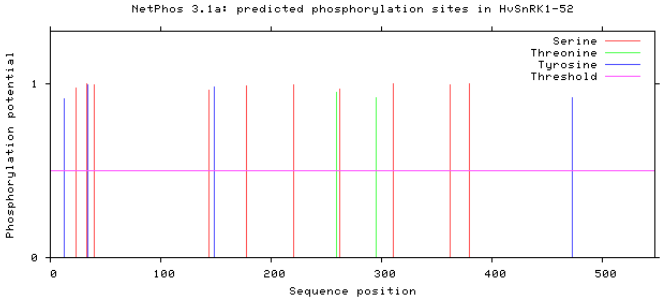
HvSnRK-50



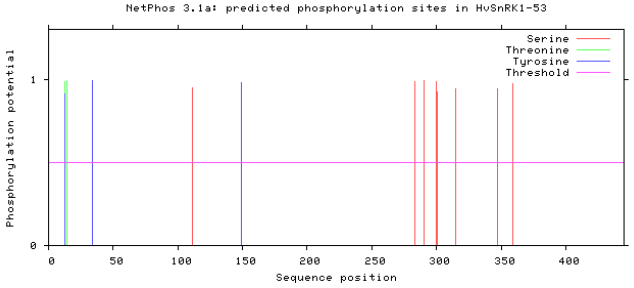
HvSnRK-51



HvSnRK-52



HvSnRK-53



HvSnRK-54

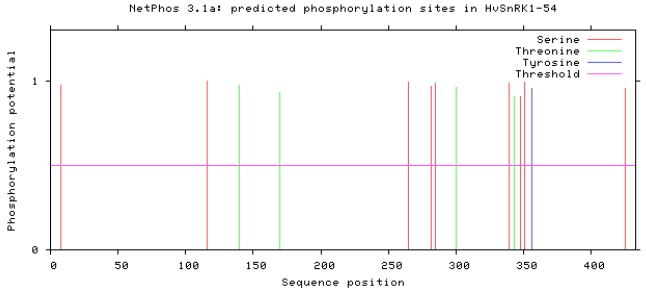
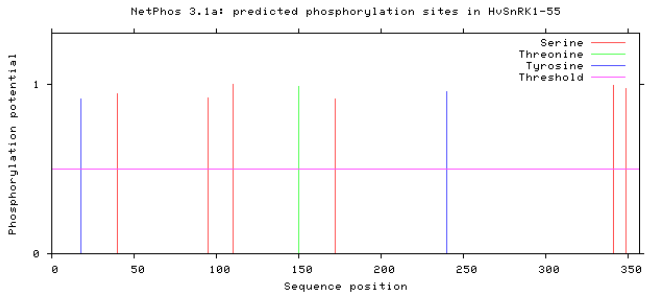
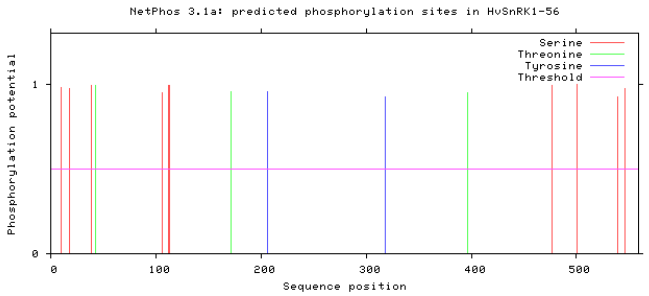


Fig. S39. HvSnRK protein putative phosphorylation with serine, threonine and tyrosine

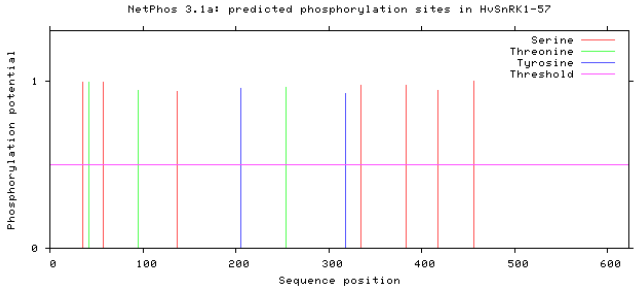
HvSnRK-55



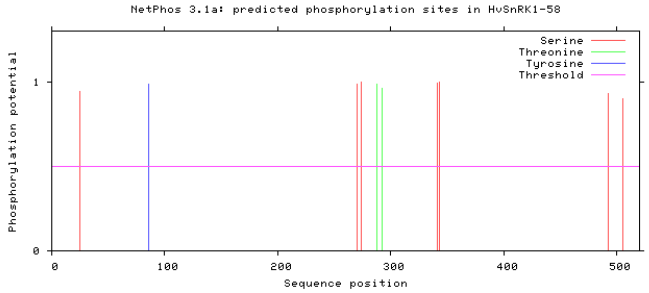
HvSnRK-56



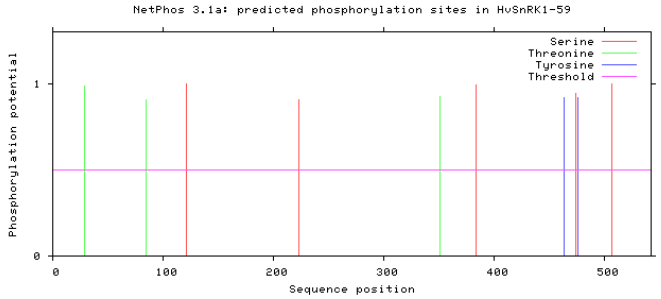
HvSnRK-57



HvSnRK-58



HvSnRK-59



HvSnRK-60

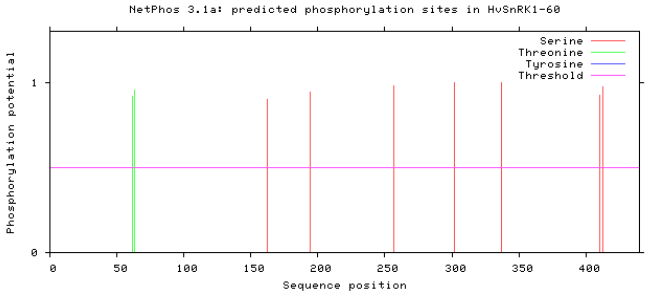
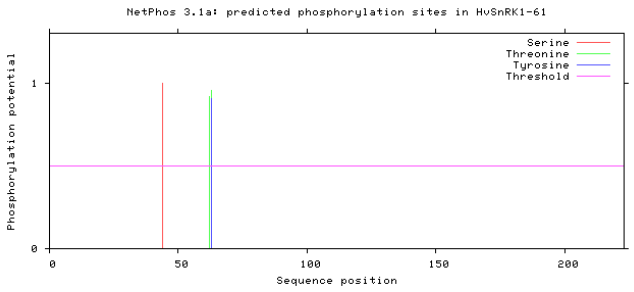
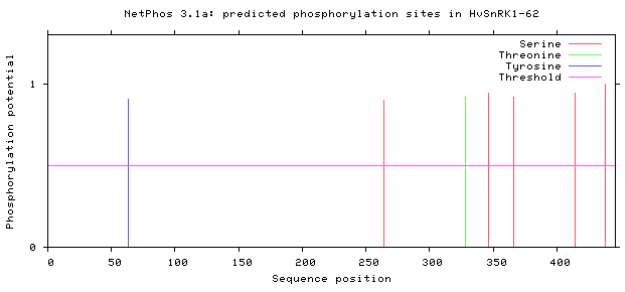


Fig. S40. HvSnRK protein putative phosphorylation with serine, threonine and tyrosine

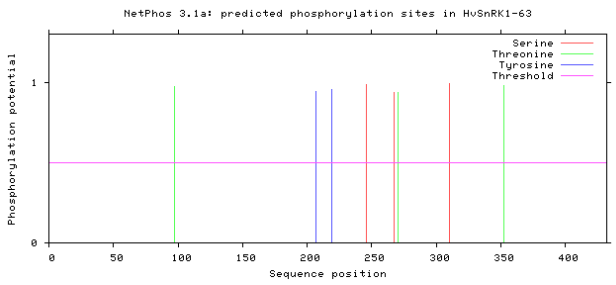
HvSnRK-61



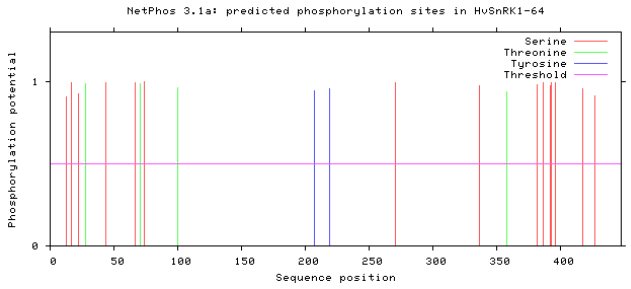
HvSnRK-62



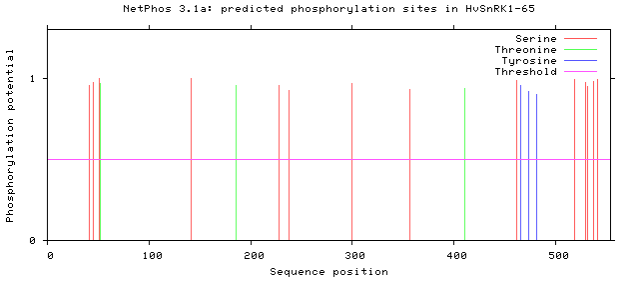
HvSnRK-63



HvSnRK-64



HvSnRK-65



HvSnRK-66

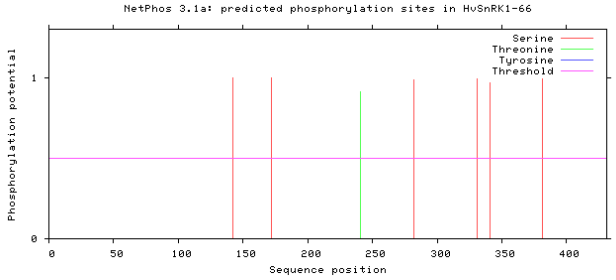
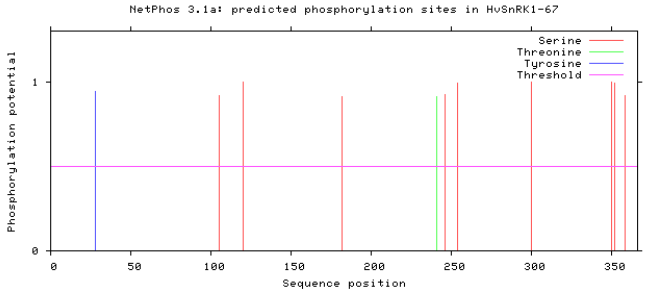
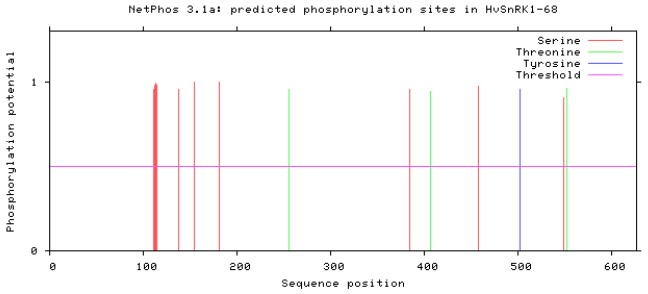


Fig. S41. HvSnRK protein putative phosphorylation with serine, threonine and tyrosine

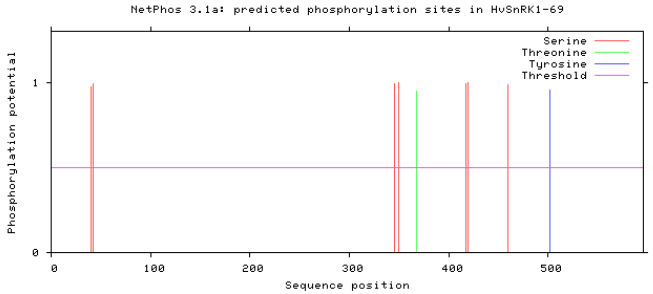
HvSnRK-67



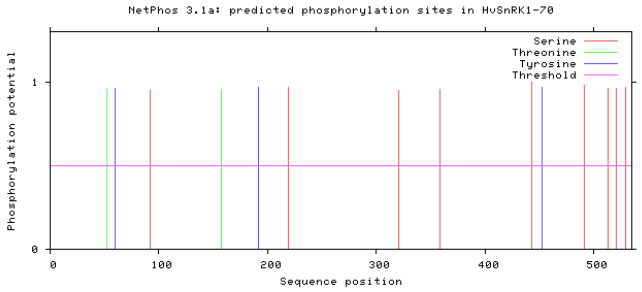
HvSnRK-68



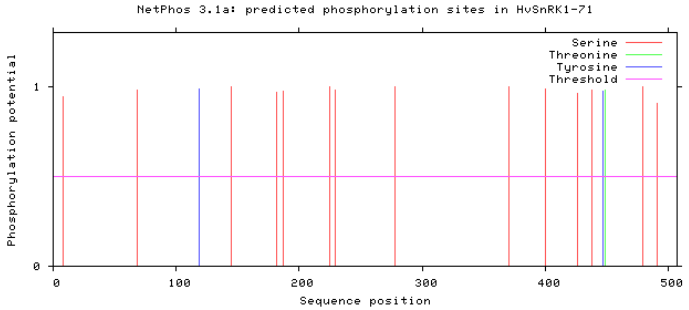
HvSnRK-69



HvSnRK-70



HvSnRK-71



HvSnRK-72

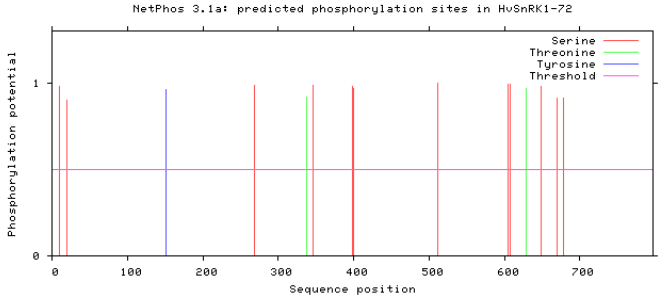
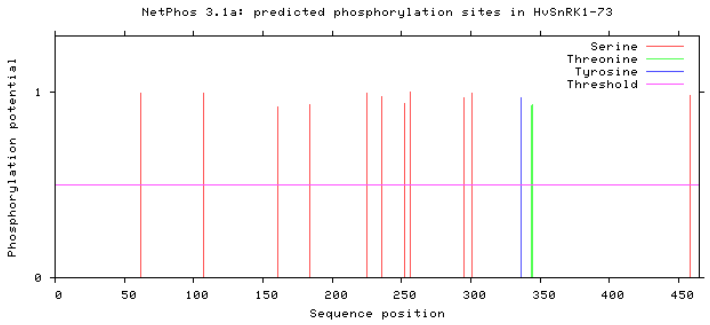
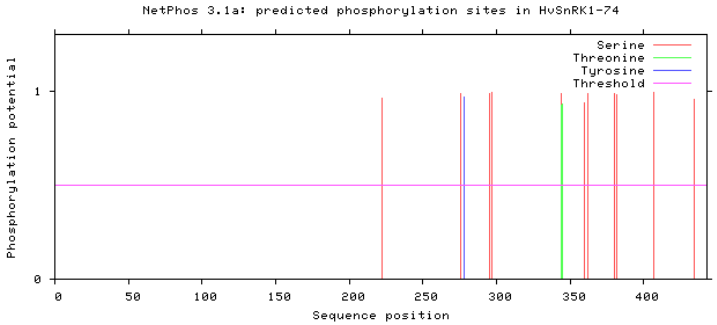


Fig. S42. HvSnRK protein putative phosphorylation with serine, threonine and tyrosine

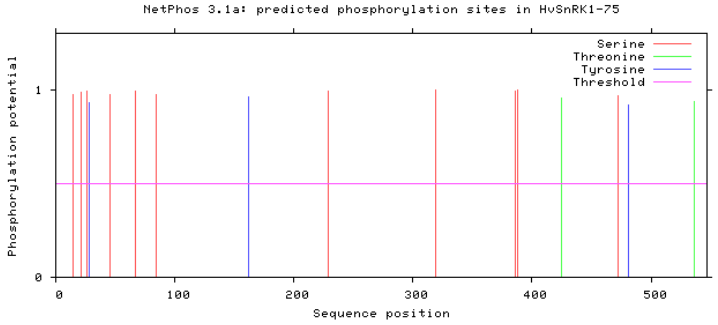
HvSnRK-73



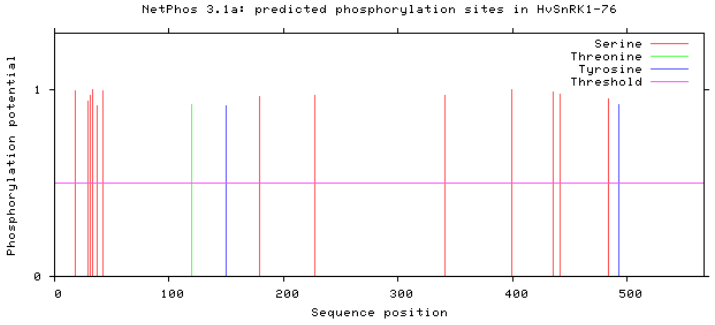
HvSnRK-74



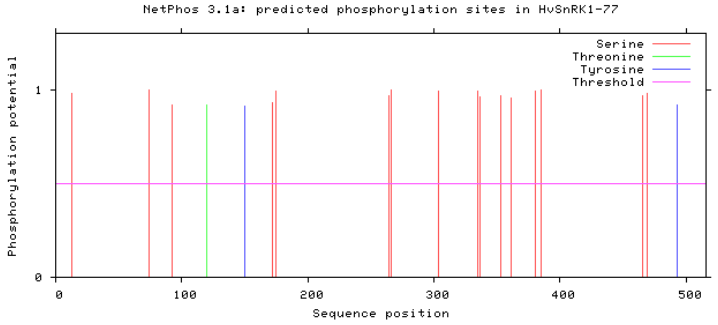
HvSnRK-75



HvSnRK-76



HvSnRK-77



HvSnRK-78

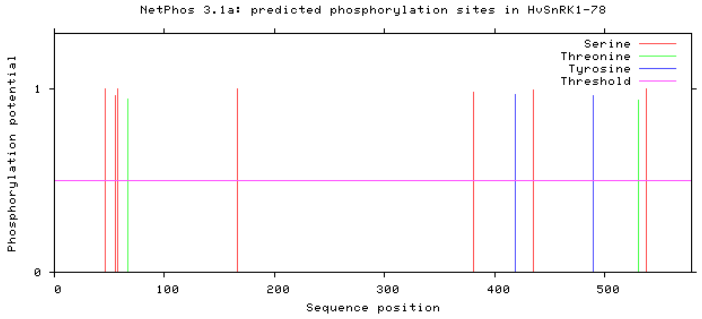
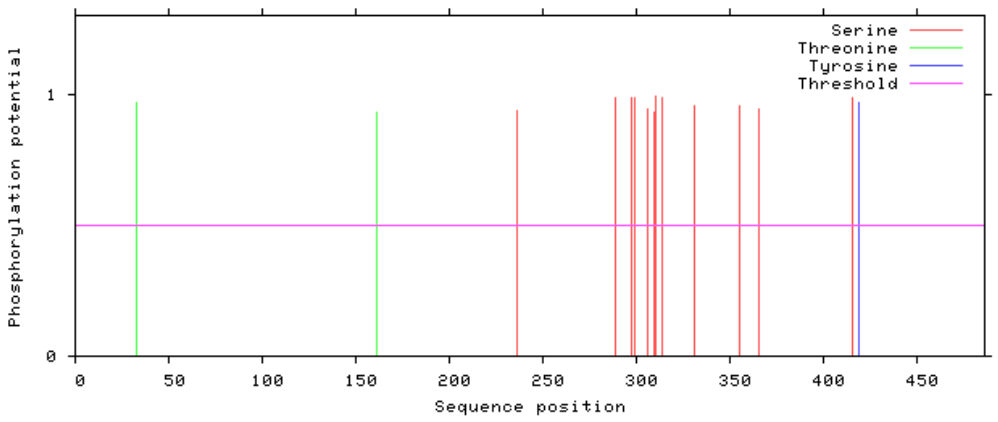
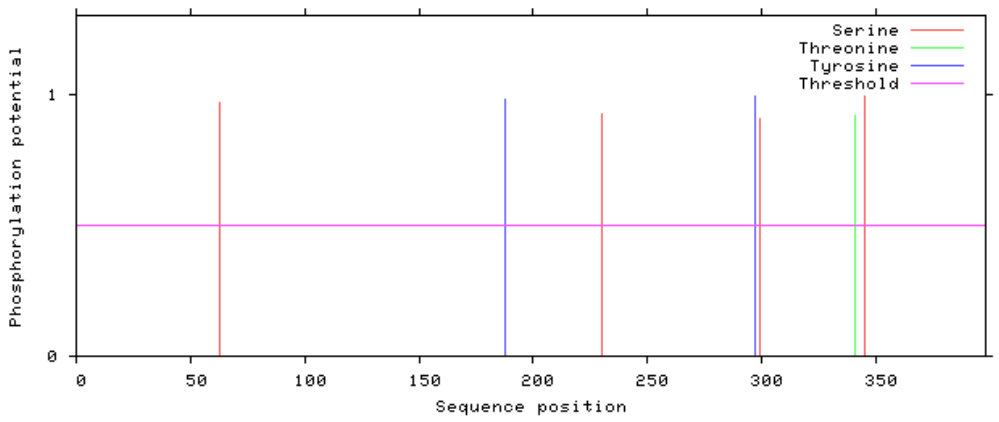


Fig. S43. HvSnRK protein putative phosphorylation with serine, threonine and tyrosine

HvSnRK-79



HvSnRK-80



HvSnRK-81

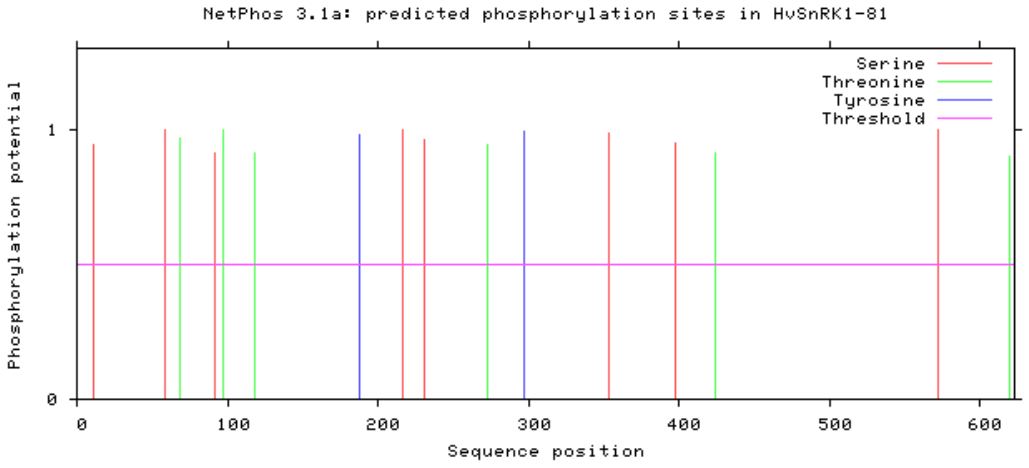
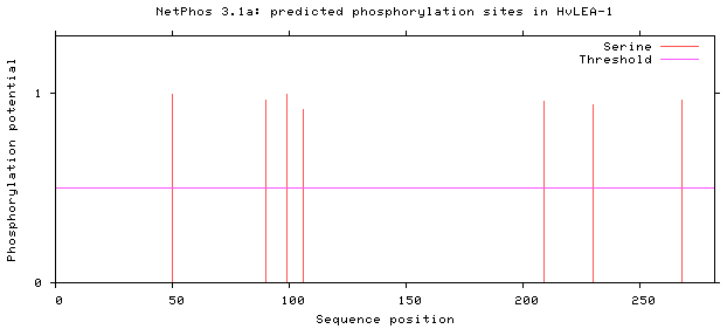
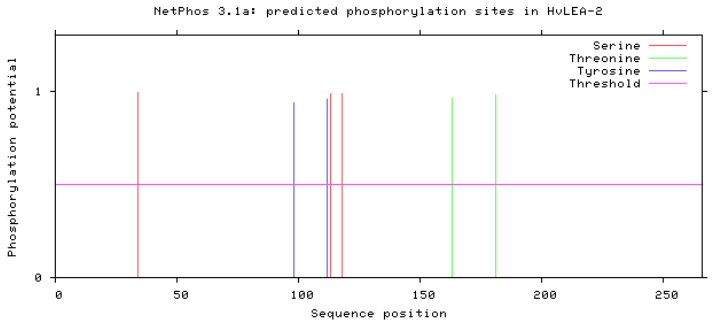


Fig. S44. HvSnRK protein putative phosphorylation with serine, threonine and tyrosine

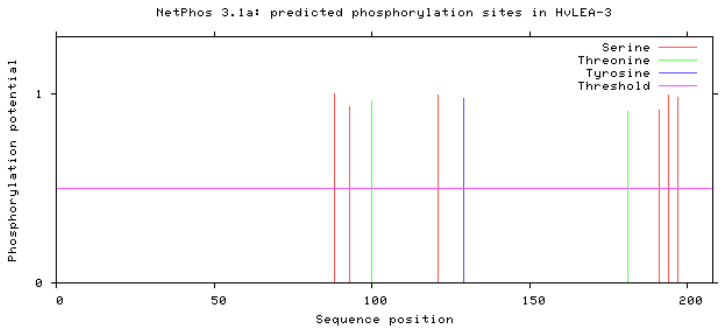
HvLEA-1



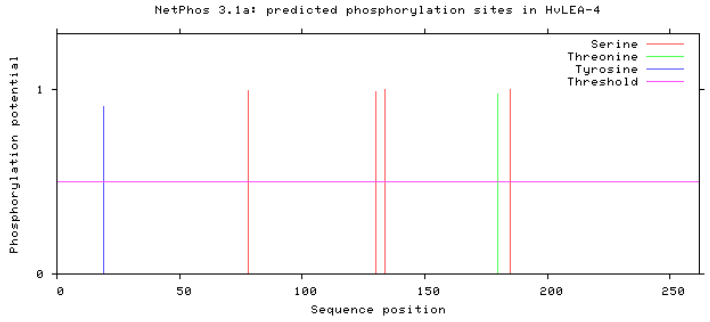
HvLEA-2



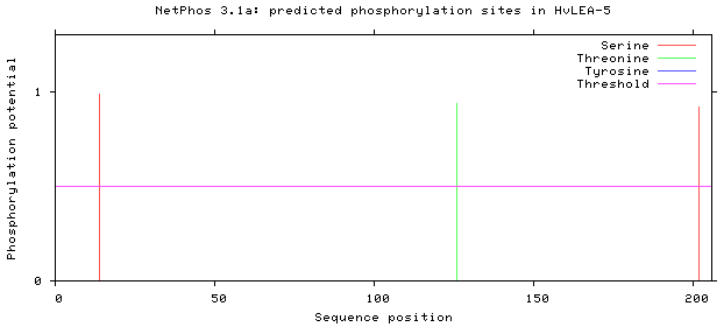
HvLEA-3



HvLEA-4



HvLEA-5



HvLEA-6

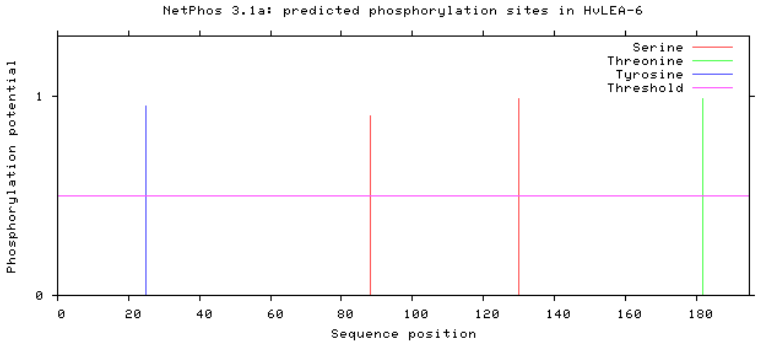
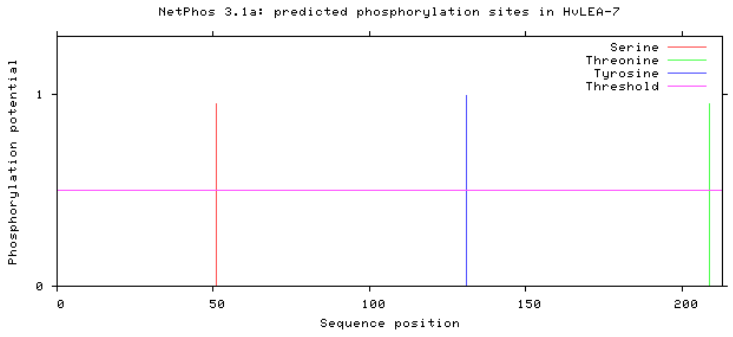
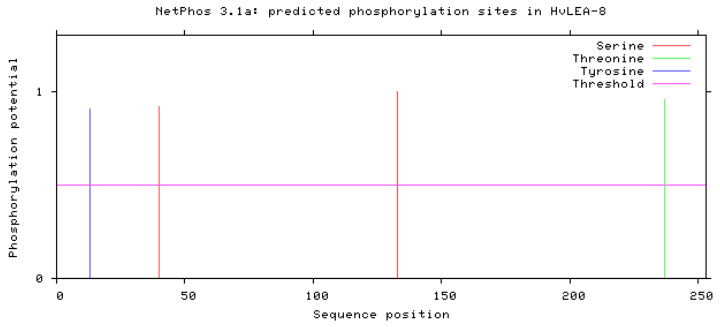


Fig. S45. HvLEA protein putative phosphorylation with serine, threonine and tyrosine

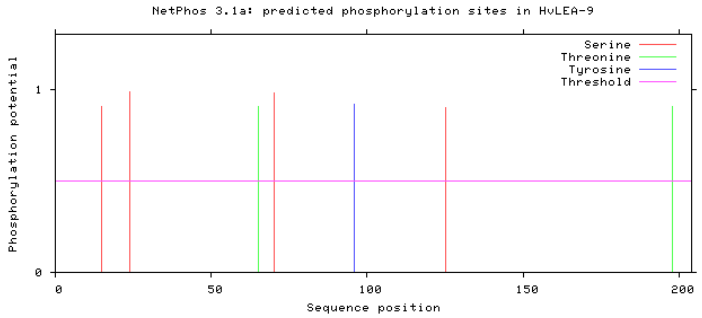
HvLEA-7



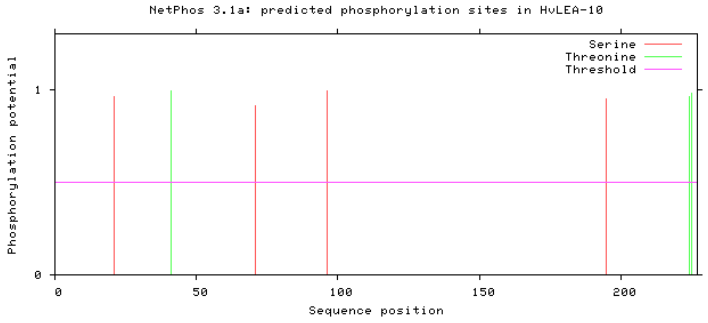
HvLEA-8



HvLEA-9



HvLEA-10



HvLEA-11

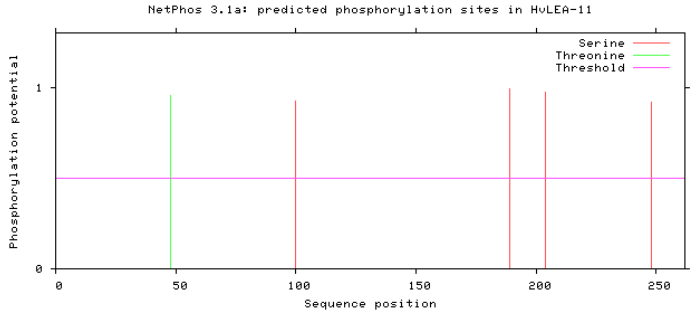
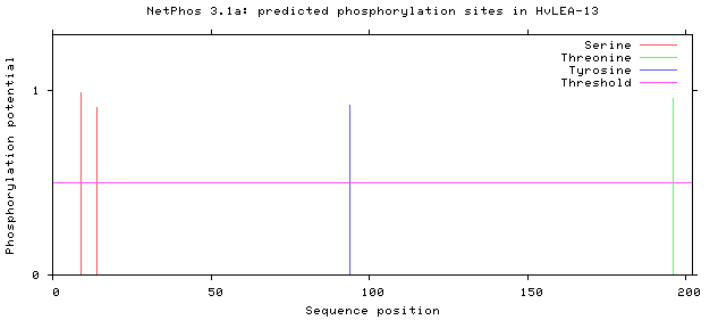
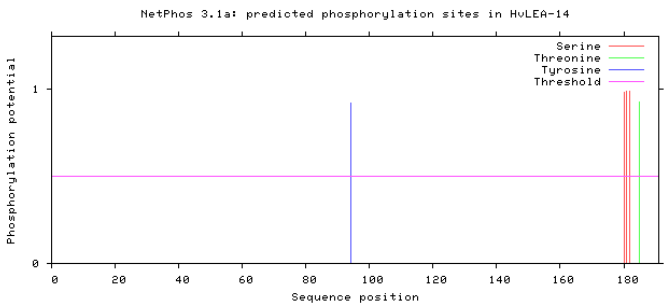


Fig. S46. HvLEA protein putative phosphorylation with serine, threonine and tyrosine

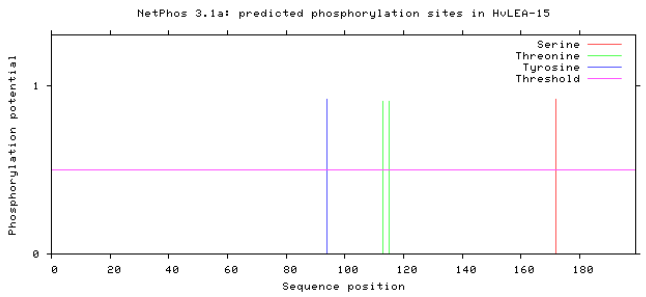
HvLEA-13



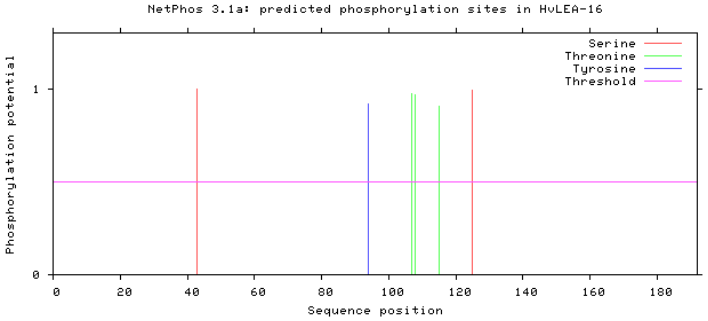
HvLEA-14



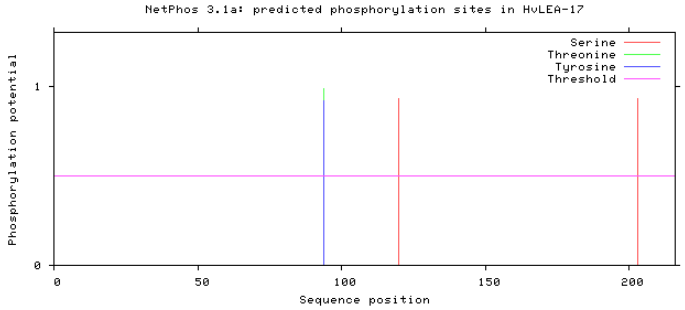
HvLEA-15



HvLEA-16



HvLEA-17



HvLEA-18

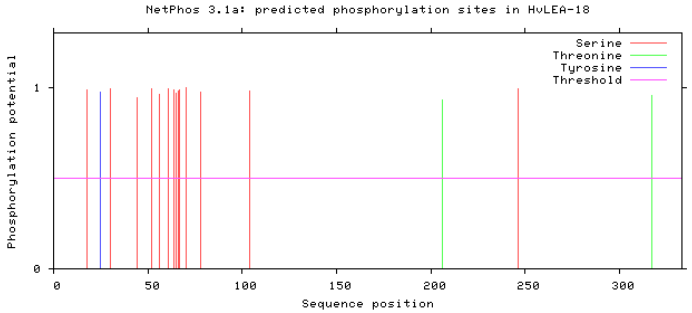
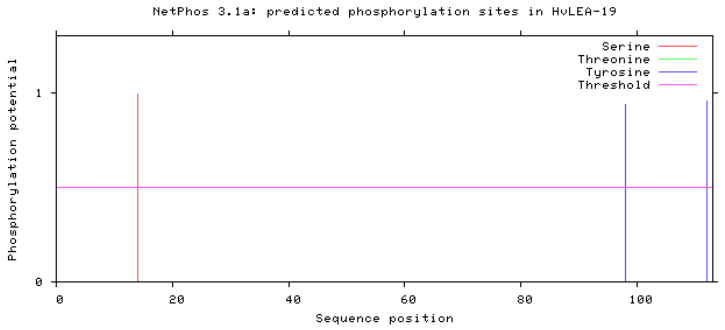
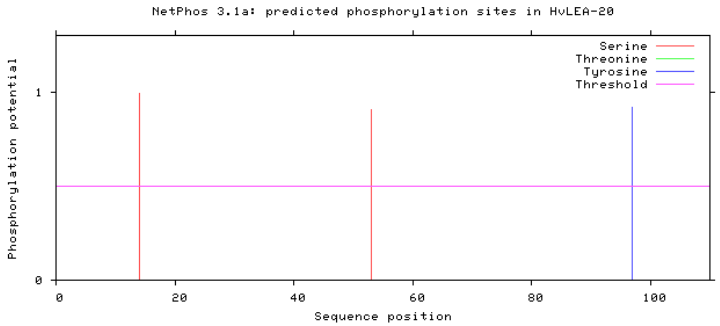


Fig. S47. HvLEA protein putative phosphorylation with serine, threonine and tyrosine

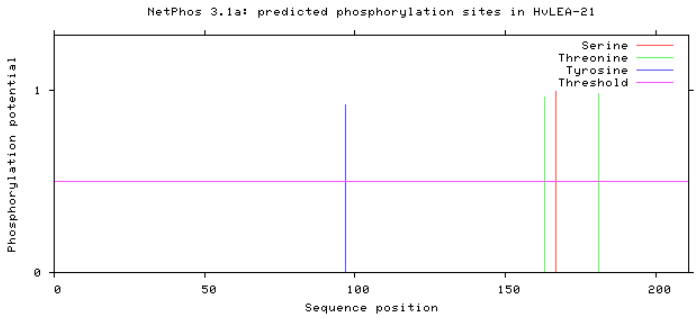
HvLEA-19



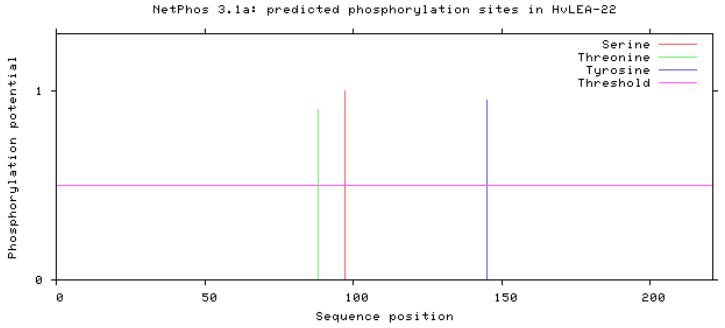
HvLEA-20



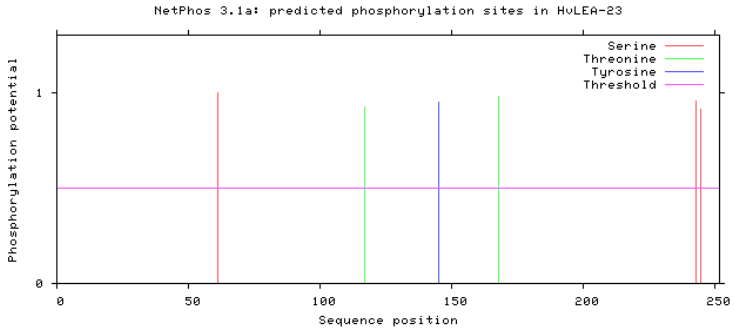
HvLEA-21



HvLEA-22



HvLEA-23



HvLEA-24

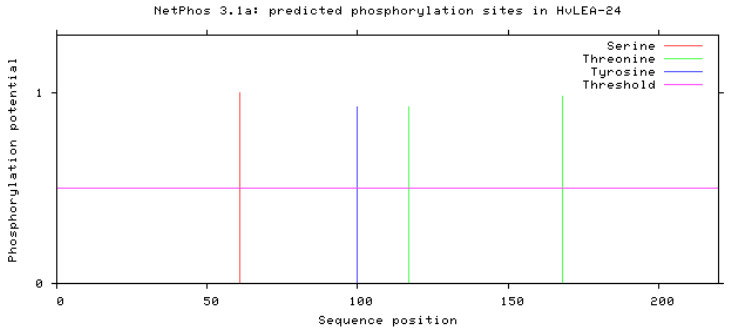
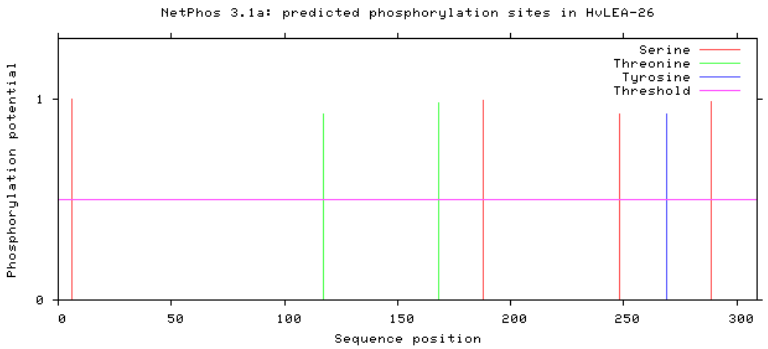
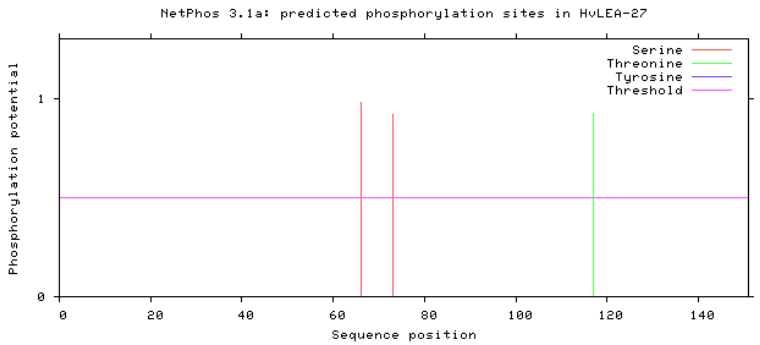


Fig. S48. HvLEA protein putative phosphorylation with serine, threonine and tyrosine

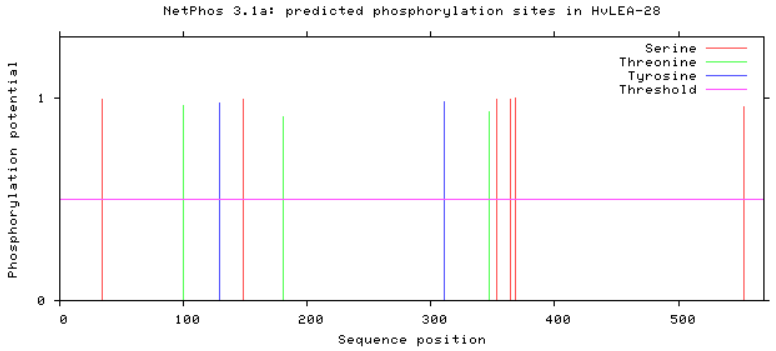
HvLEA-26



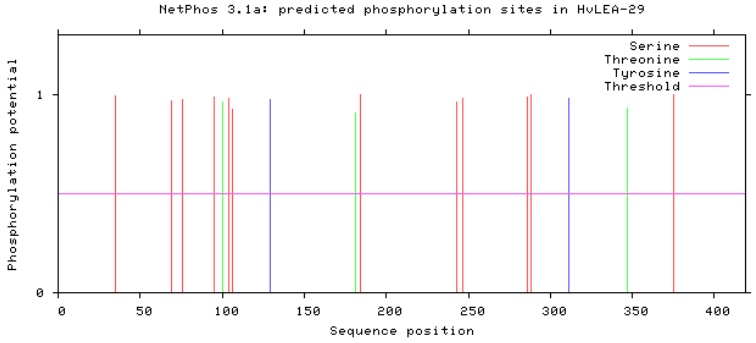
HvLEA-27



HvLEA-28



HvLEA-29



HvLEA-30

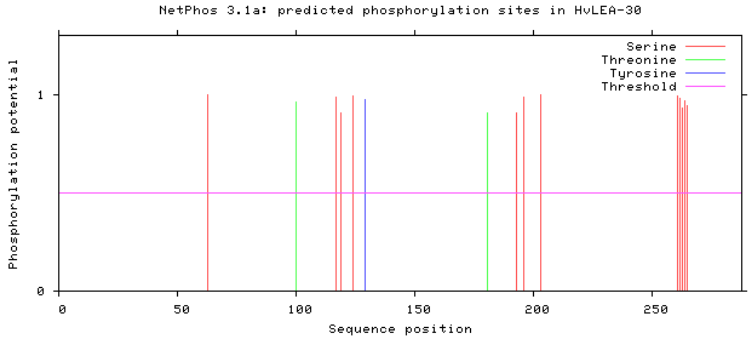
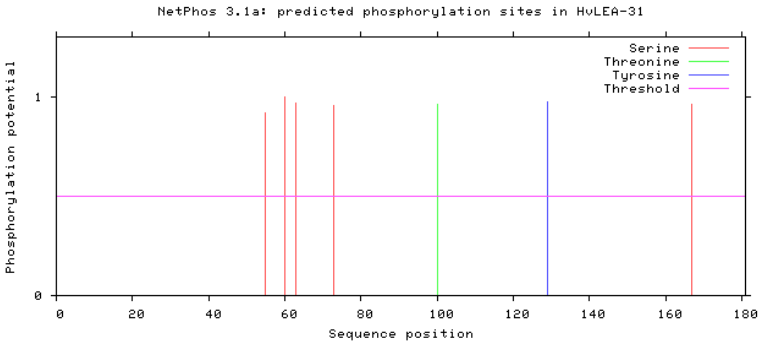
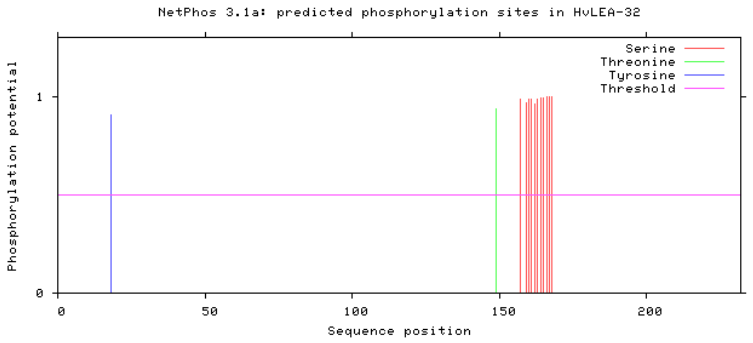


Fig. S49. HvLEA protein putative phosphorylation with serine, threonine and tyrosine

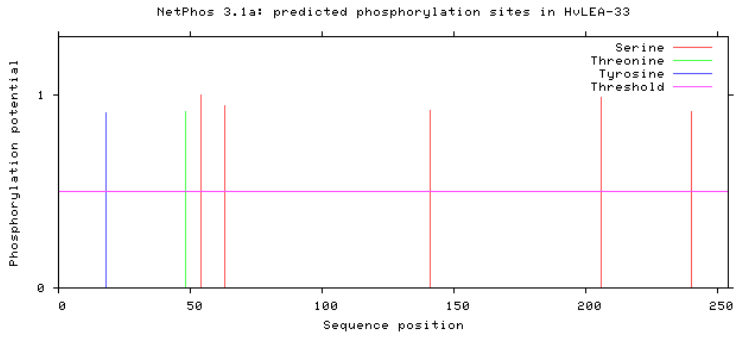
HvLEA-31



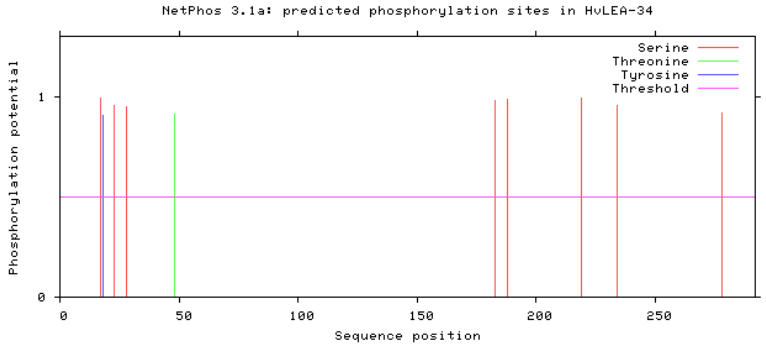
HvLEA-32



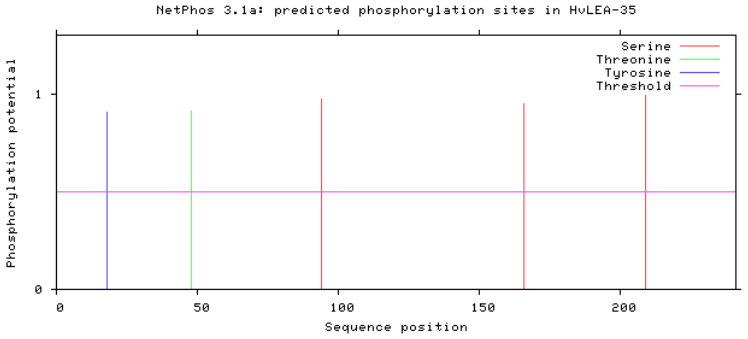
HvLEA-33



HvLEA-34



HvLEA-35



HvLEA-36

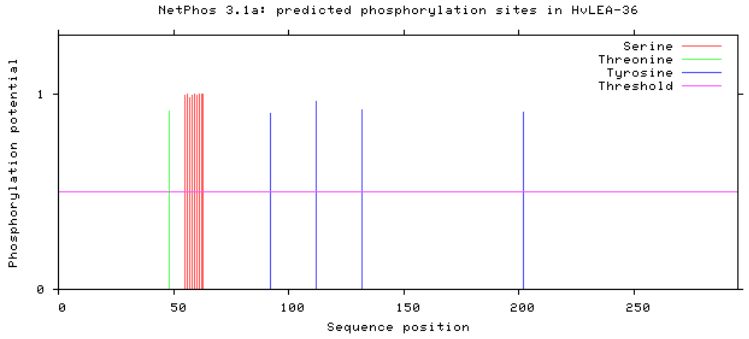
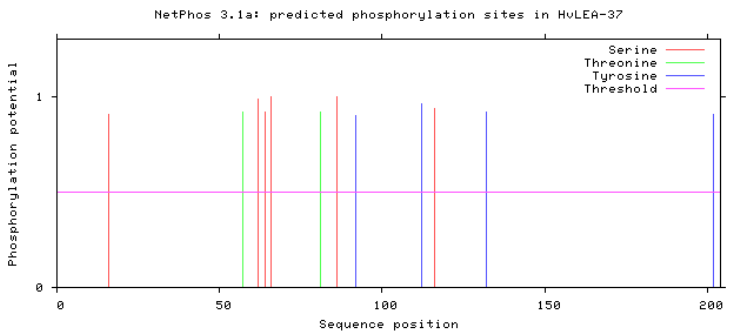
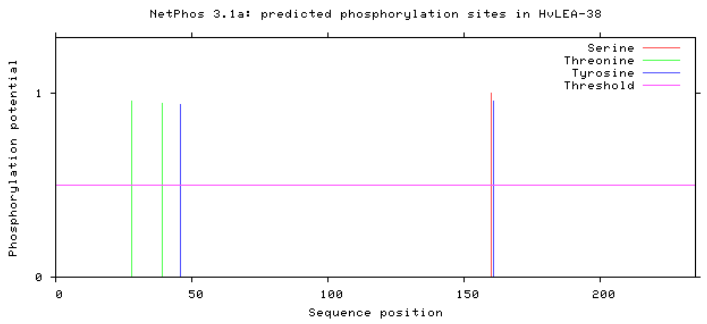


Fig. S50. HvLEA protein putative phosphorylation with serine, threonine and tyrosine

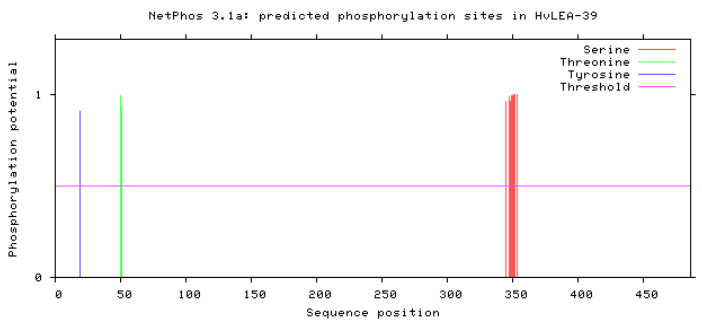
HvLEA-37



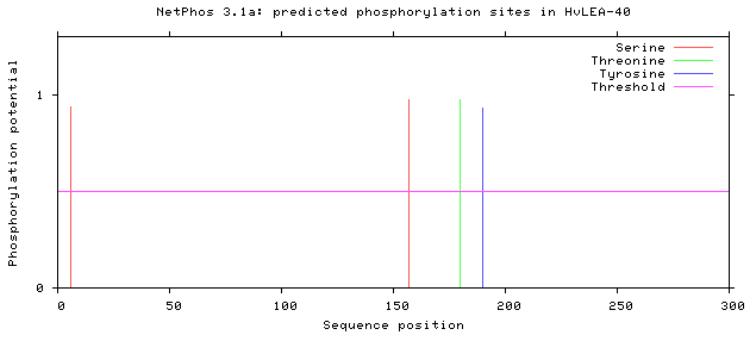
HvLEA-38



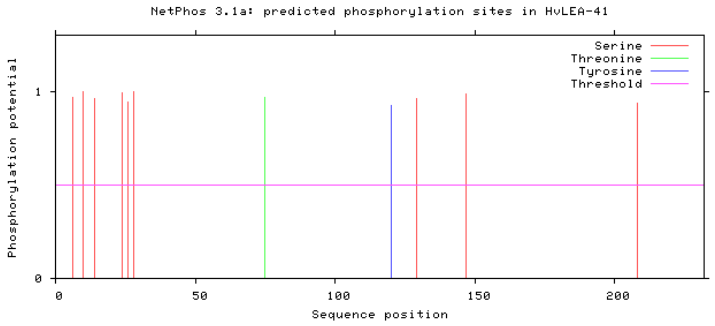
HvLEA-39



HvLEA-40



HvLEA-41



HvLEA-42

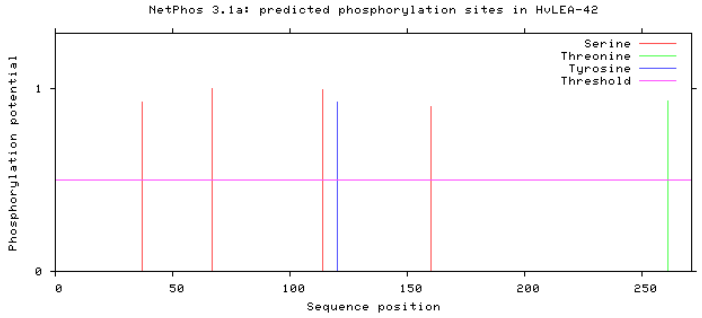
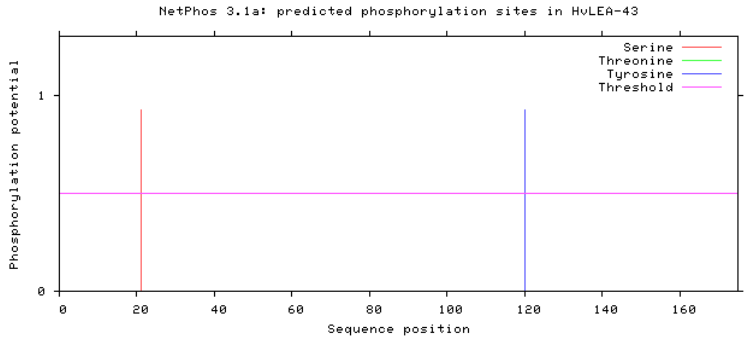
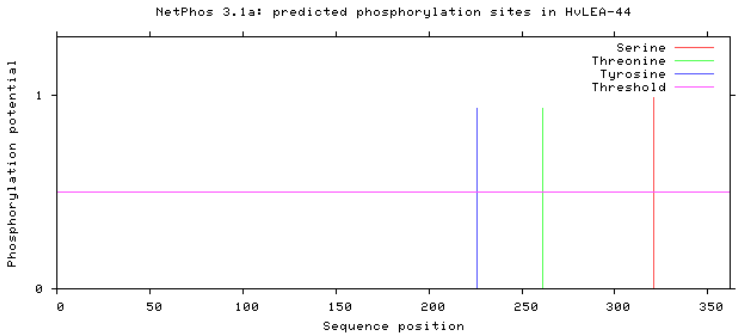


Fig. S51. HvLEA protein putative phosphorylation with serine, threonine and tyrosine

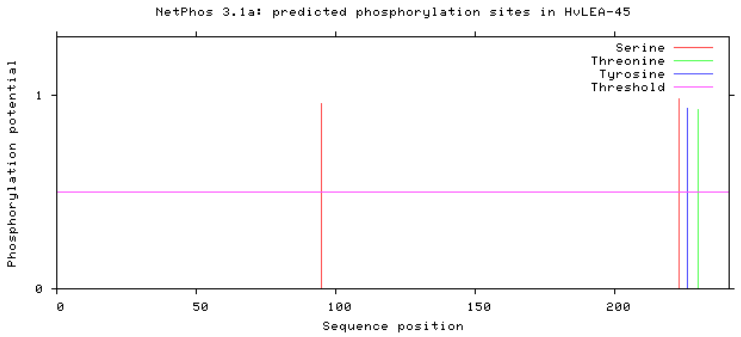
HvLEA-43



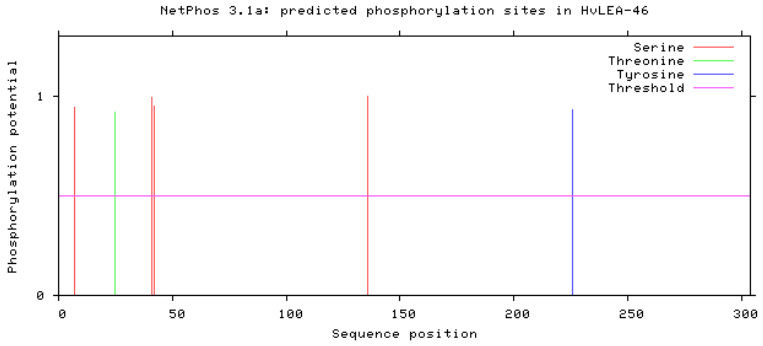
HvLEA-44



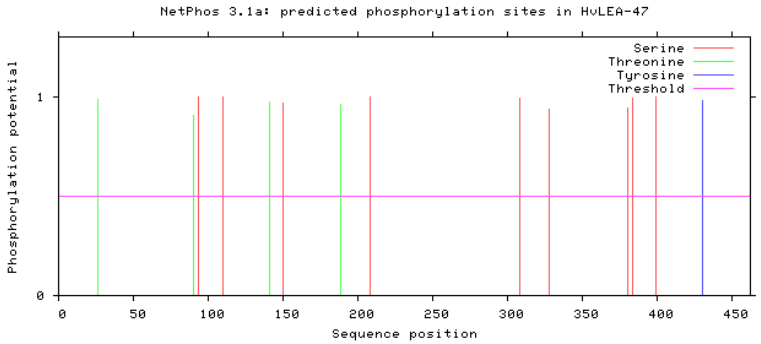
HvLEA-45



HvLEA-46



HvLEA-47



HvLEA-48

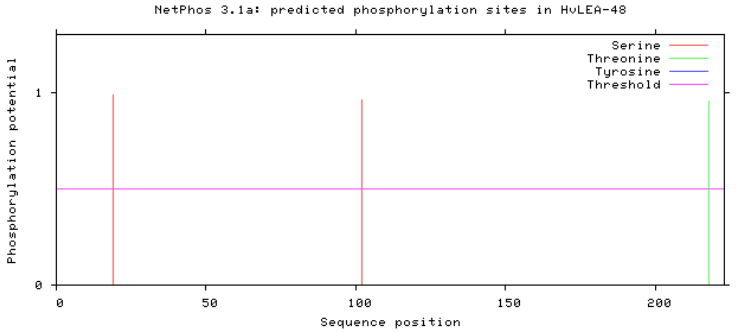
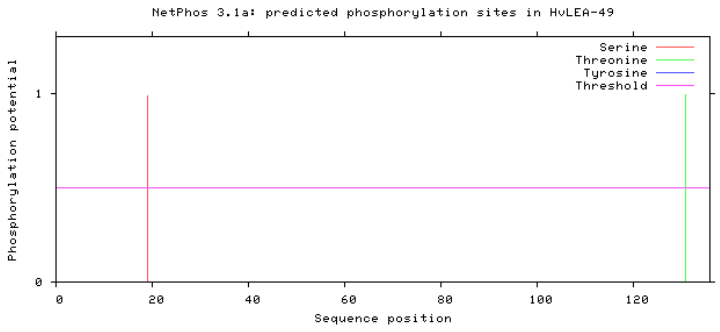
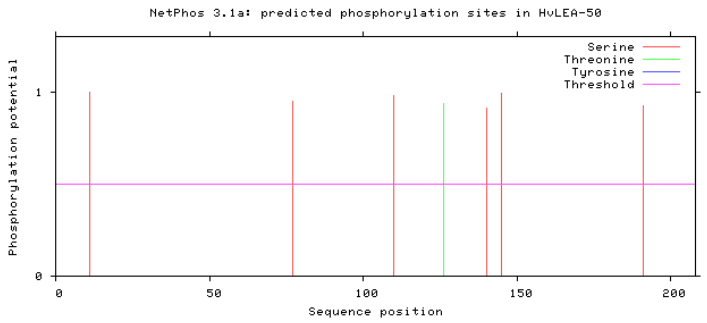


Fig. S52. HvLEA protein putative phosphorylation with serine, threonine and tyrosine

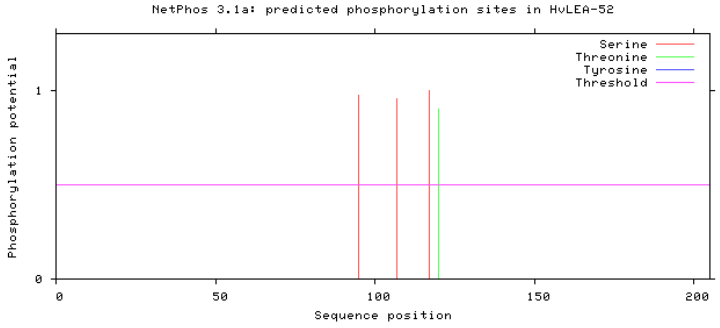
HvLEA-49



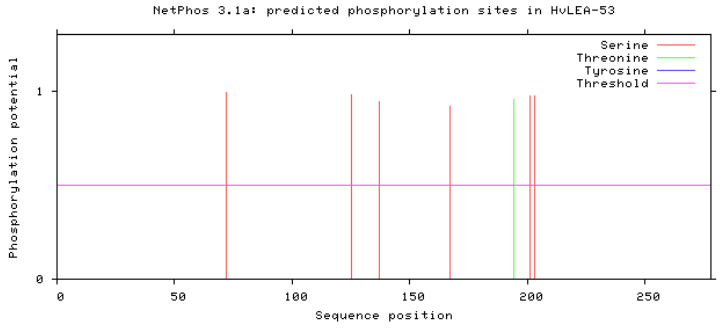
HvLEA-50



HvLEA-52



HvLEA-53



HvLEA-54

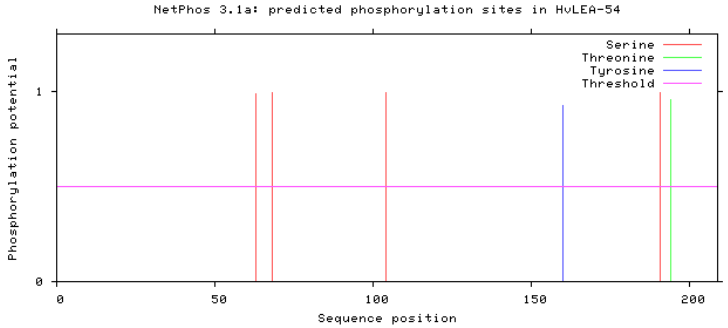
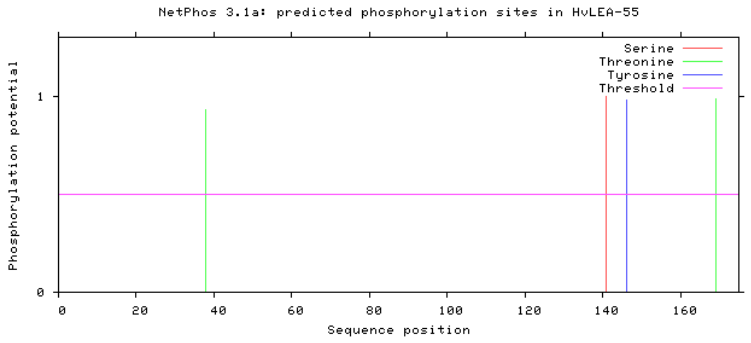
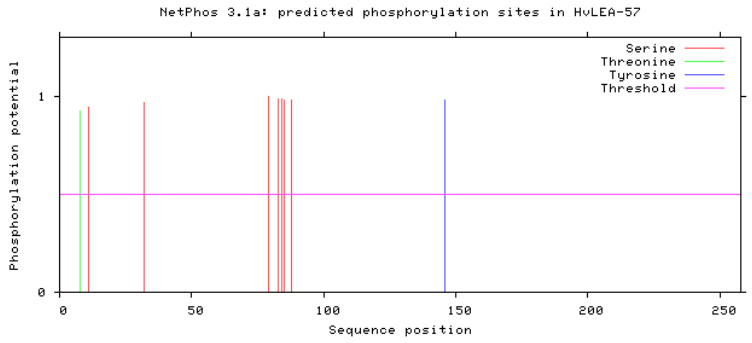


Fig. S53. HvLEA protein putative phosphorylation with serine, threonine and tyrosine

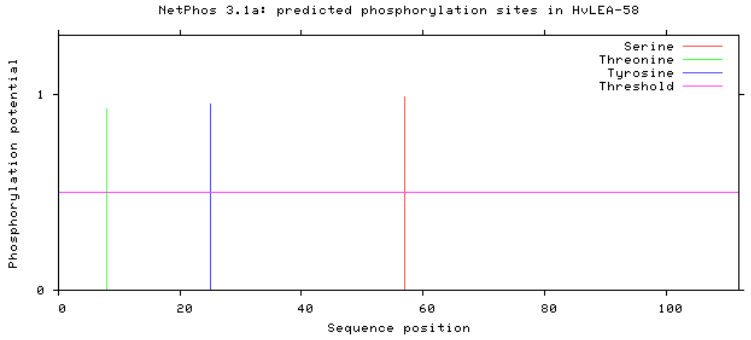
HvLEA-55



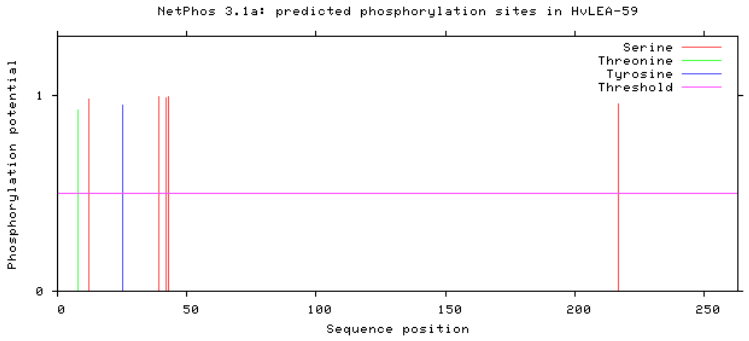
HvLEA-57



HvLEA-58



HvLEA-59



HvLEA-60

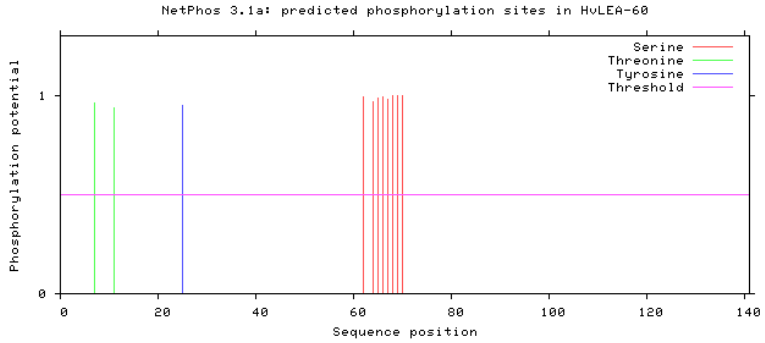
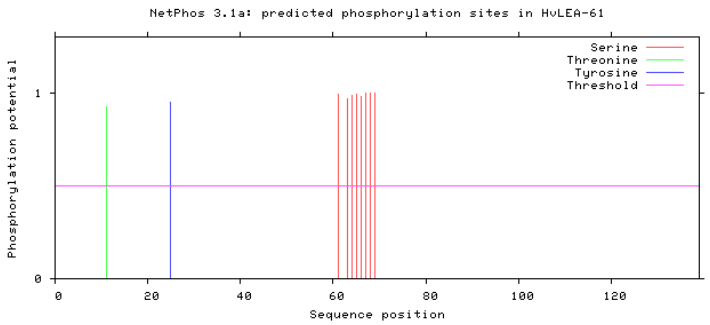
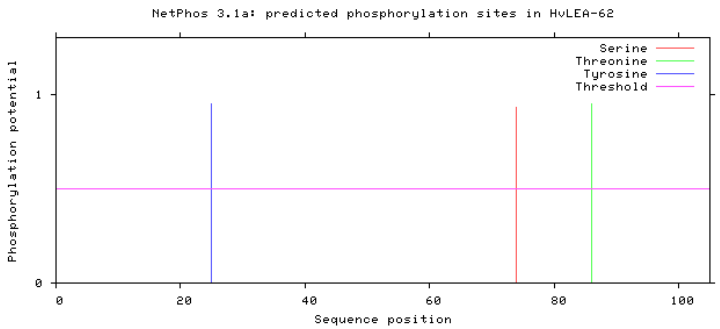


Fig. S54. HvLEA protein putative phosphorylation with serine, threonine and tyrosine

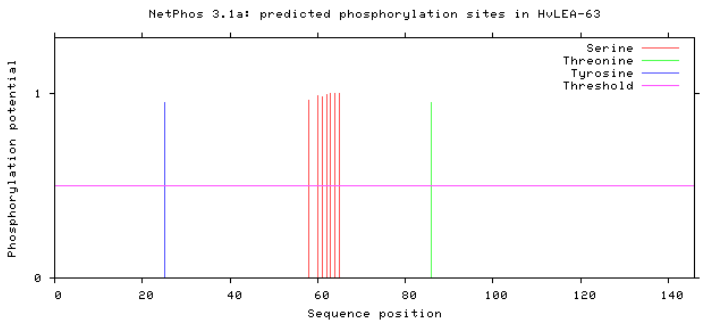
HvLEA-61



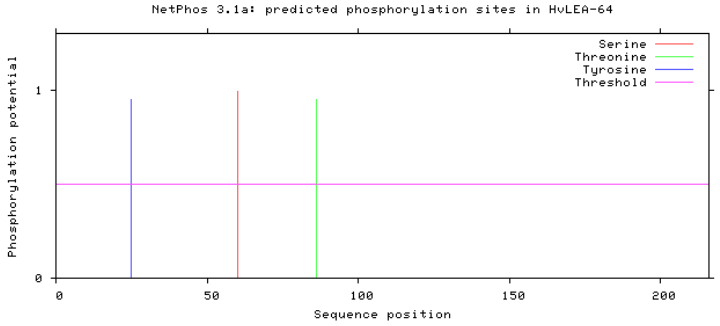
HvLEA-62



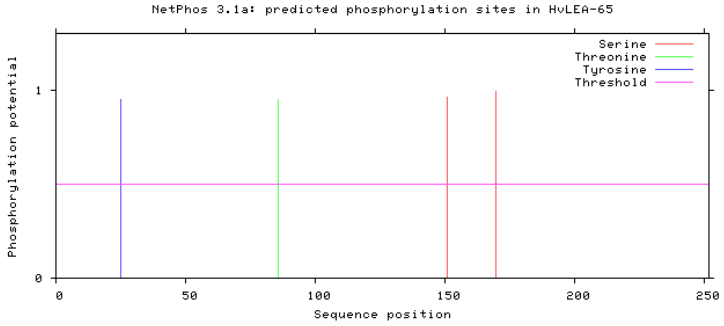
HvLEA-63



HvLEA-64



HvLEA-65



HvLEA-66

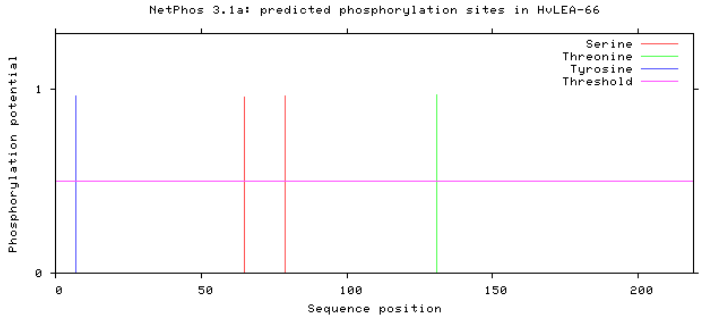
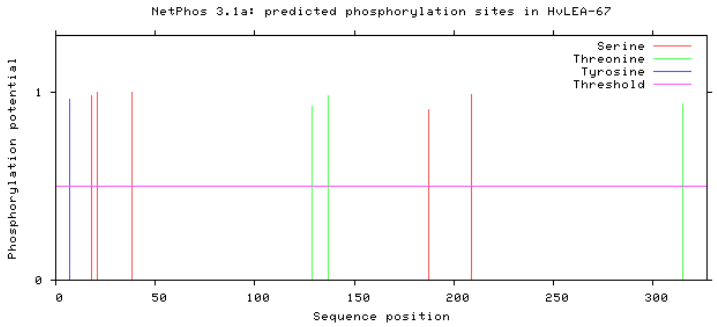
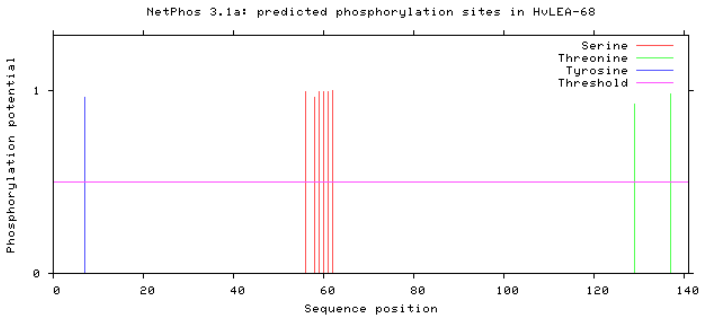


Fig. S55. HvLEA protein putative phosphorylation with serine, threonine and tyrosine

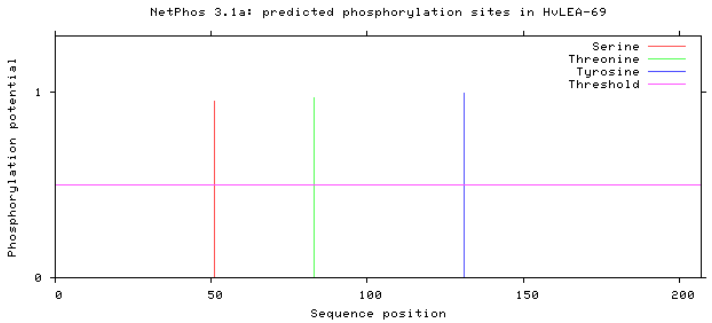
HvLEA-67



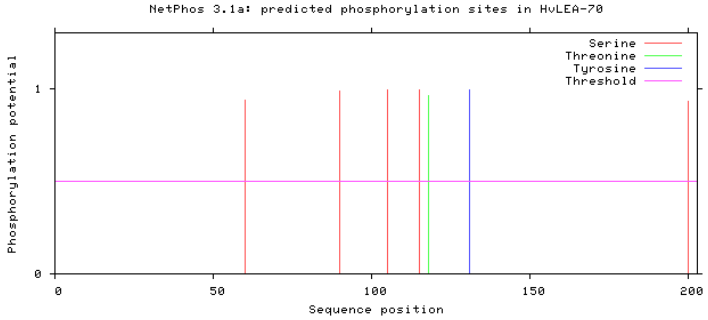
HvLEA-68



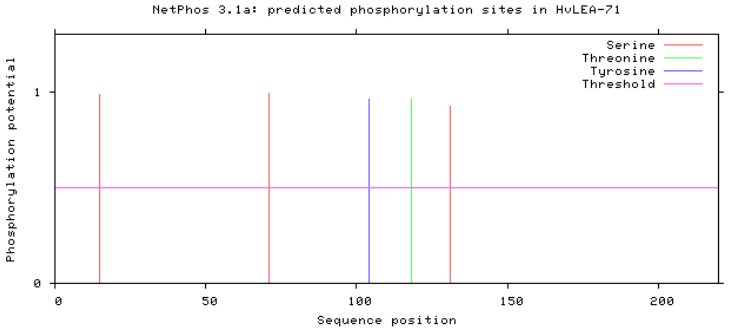
HvLEA-79



HvLEA-70



HvLEA-71



HvLEA-72

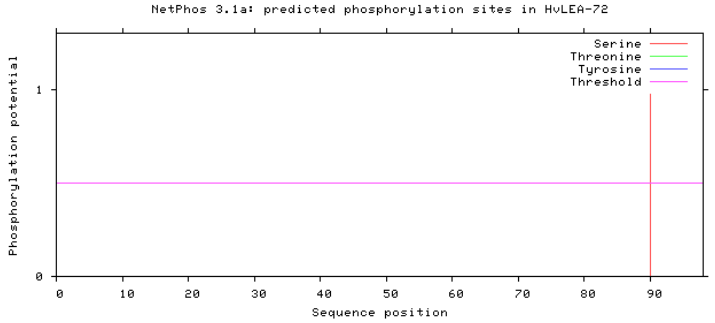
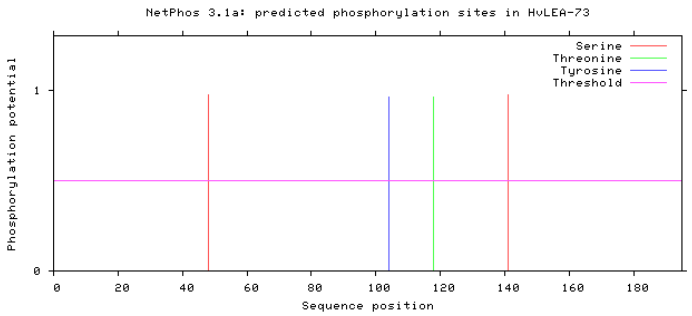
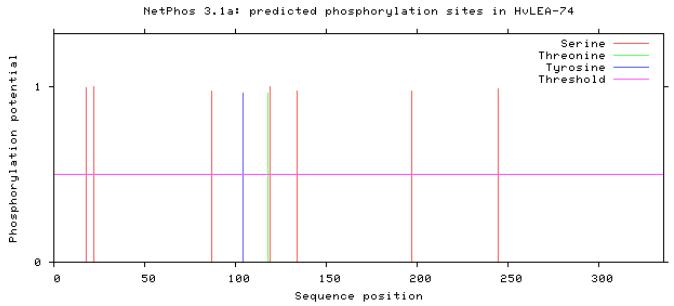


Fig. S56. HvLEA protein putative phosphorylation with serine, threonine and tyrosine

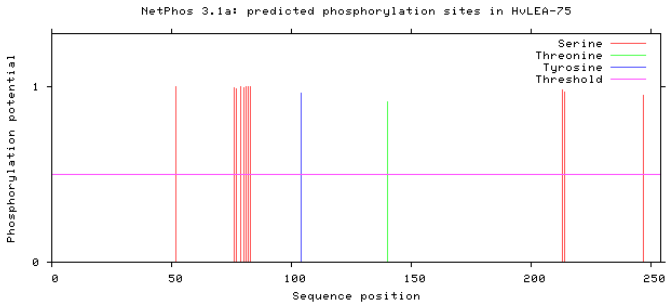
HvLEA-73



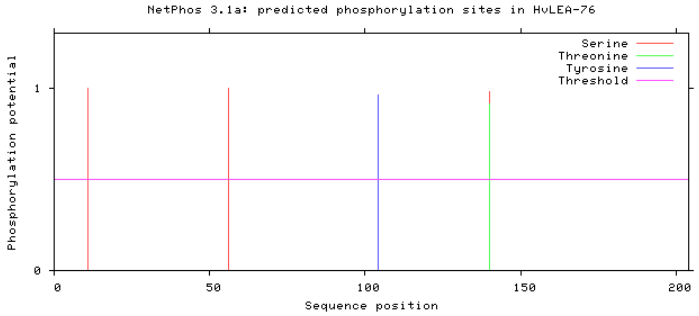
HvLEA-74



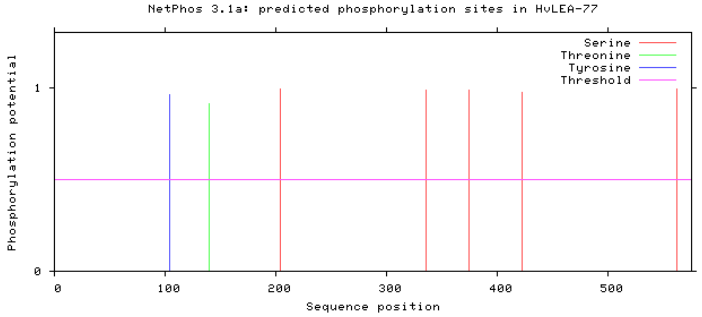
HvLEA-75



HvLEA-76



HvLEA-77



HvLEA-78

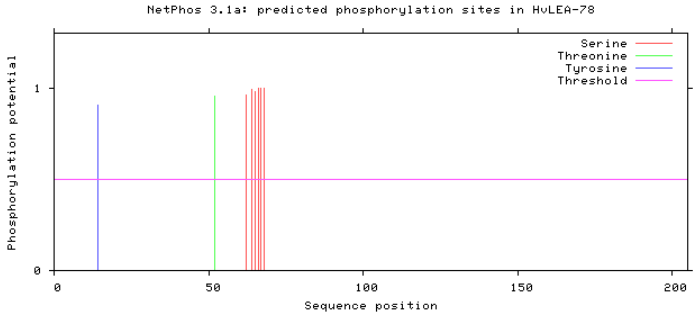
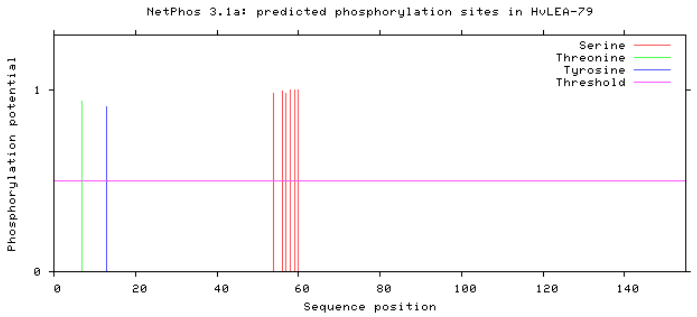
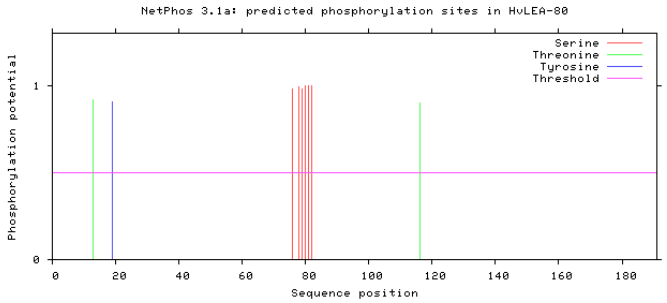


Fig. S57. HvLEA protein putative phosphorylation with serine, threonine and tyrosine

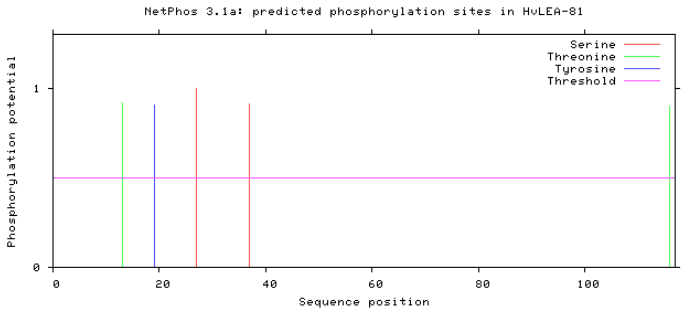
HvLEA-79



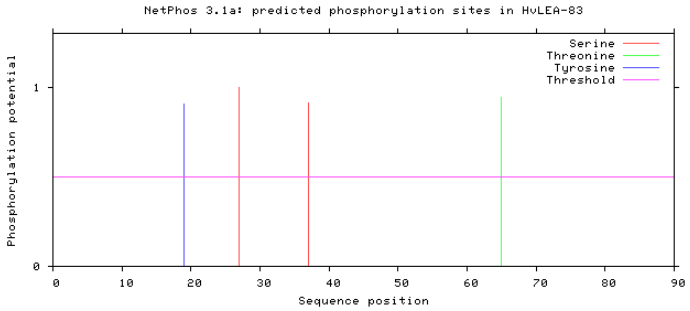
HvLEA-80



HvLEA-81



HvLEA-83



HvLEA-84

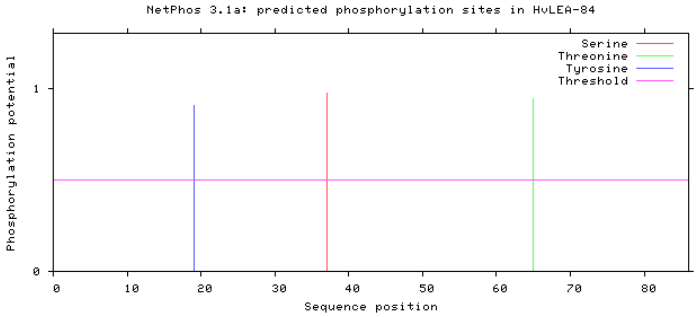
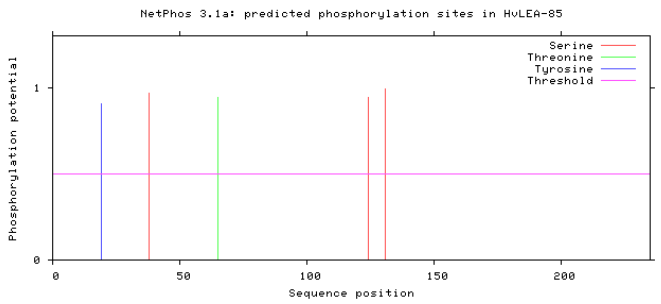
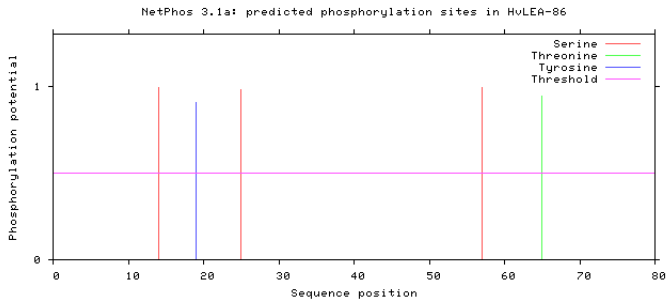


Fig. S58. HvLEA protein putative phosphorylation with serine, threonine and tyrosine

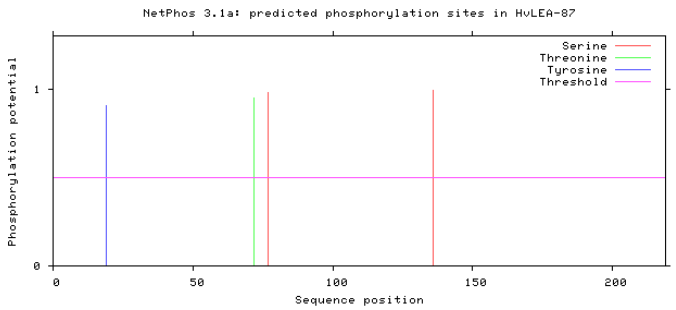
HvLEA-85



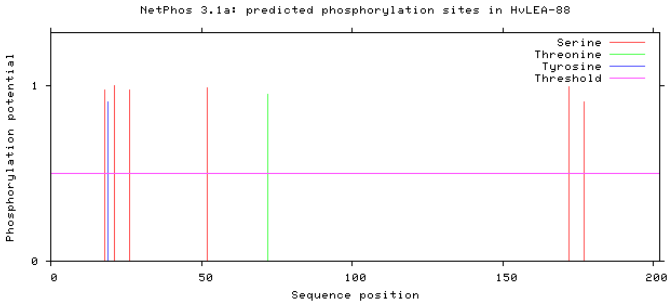
HvLEA-86



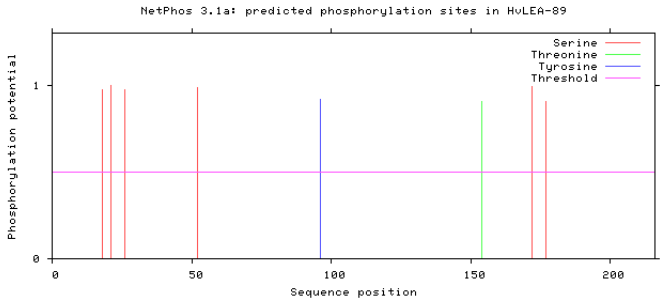
HvLEA-87



HvLEA-88



HvLEA-89



HvLEA-90

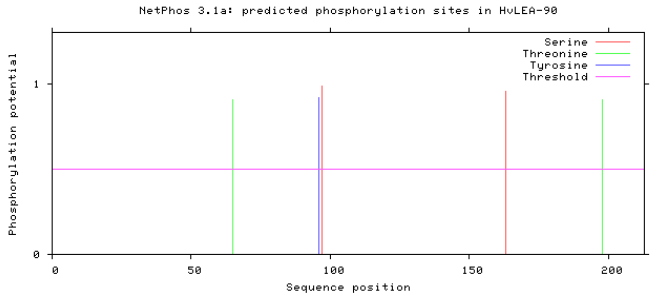
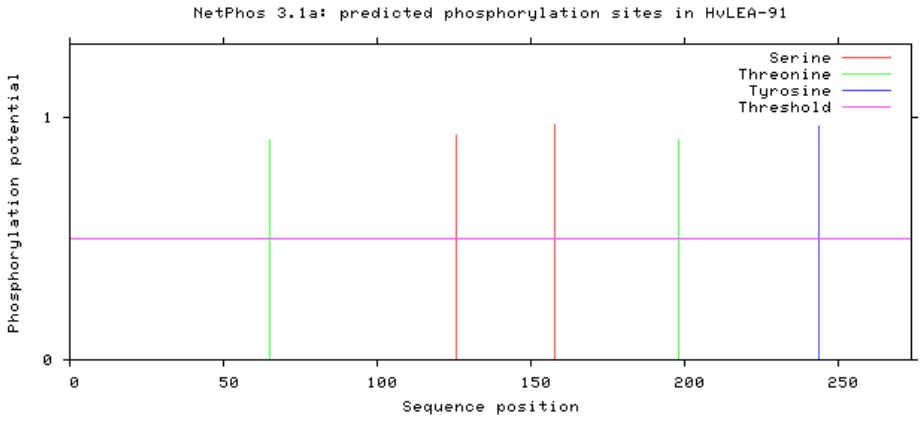
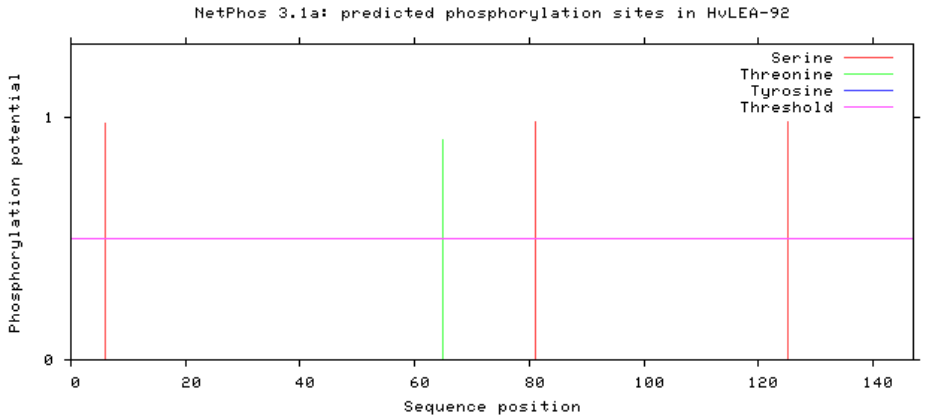


Fig. S59. HvLEA protein putative phosphorylation with serine, threonine and tyrosine

HvLEA-91



HvLEA-92



HvLEA-93

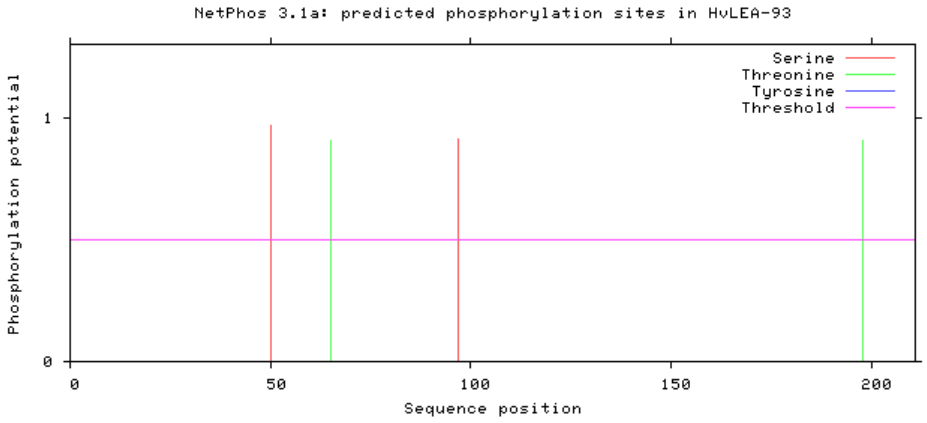
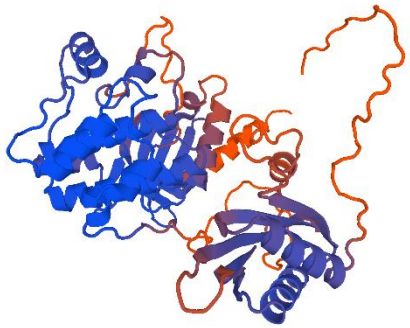
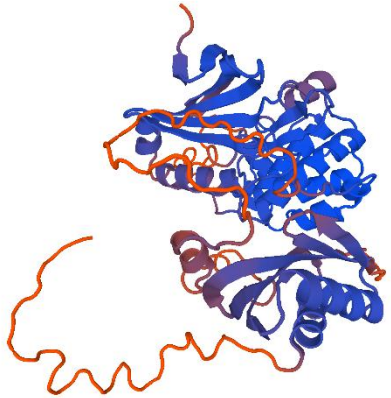


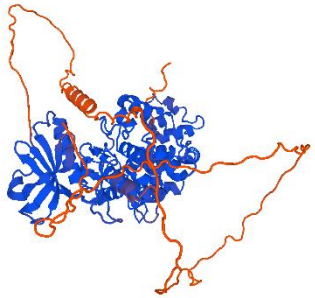
Fig. S60. HvLEA protein putative phosphorylation with serine, threonine and tyrosine



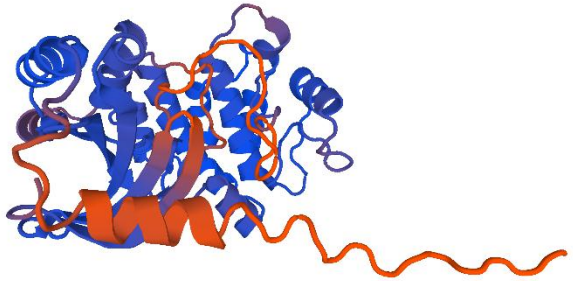
HvSnRK-1



HvSnRK-2

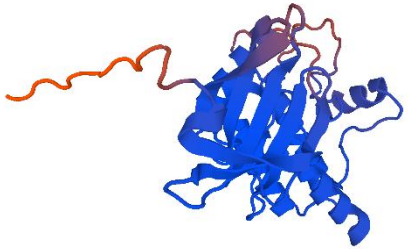


HvSnRK-3

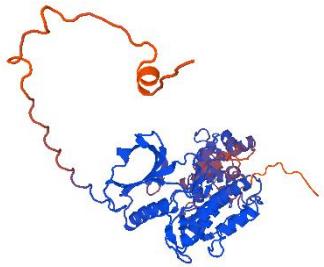


HvSnRK-4

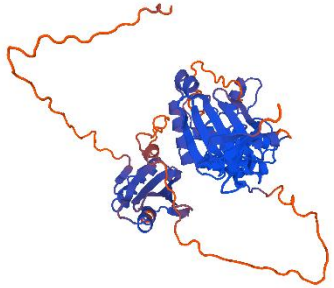
Fig. S61. HvSnRK Structural analysis protein



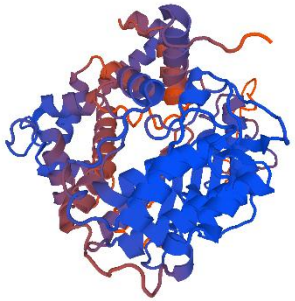
HvSnRK-5



HvSnRK-6

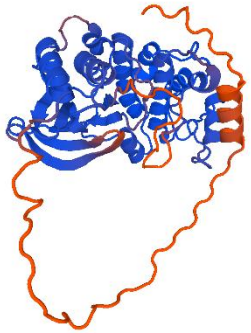


HvSnRK-7



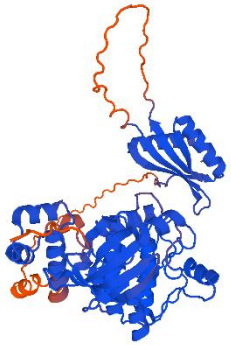
HvSnRK-8

Fig. S62. HvSnRK Structural analysis protein

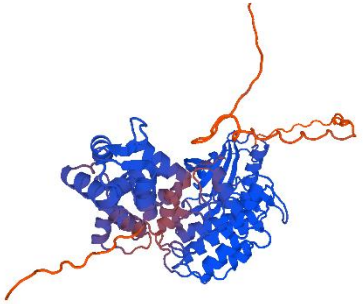


HvSnRK-9

HvSnRK-10

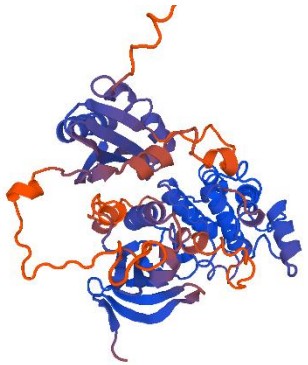


HvSnRK-11

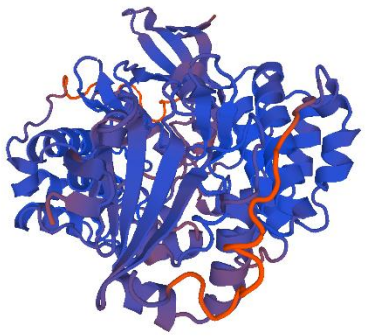


HvSnRK-12

Fig. S63. HvSnRK Structural analysis protein



HvSnRK-13



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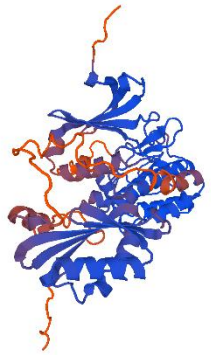
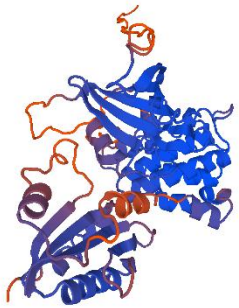
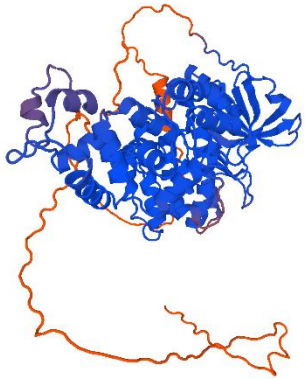


HvSnRK-15

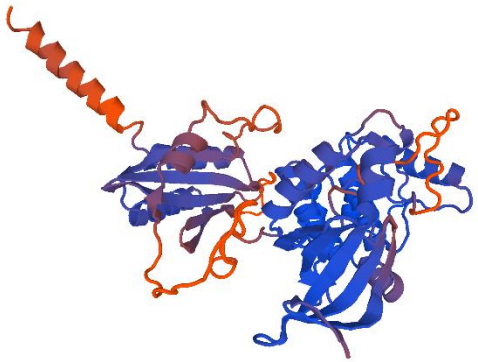


HvSnRK-16

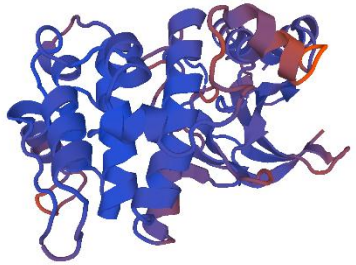
Fig. S64. HvSnRK Structural analysis protein



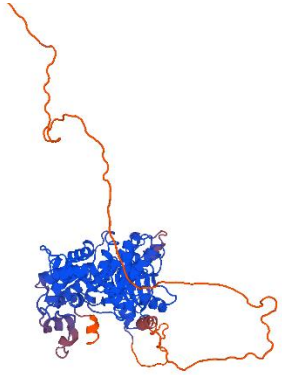
HvSnRK-17



HvSnRK-18

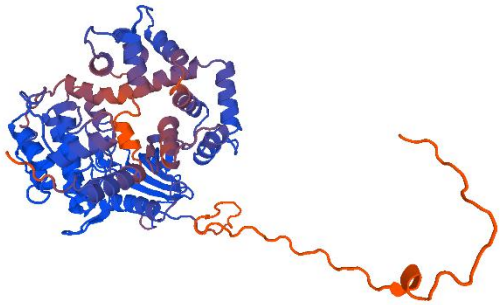


HvSnRK-19

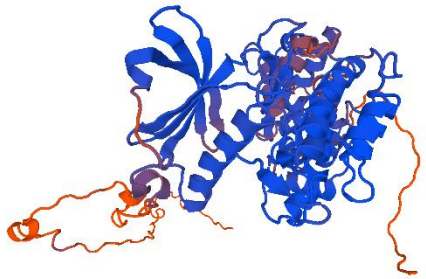


HvSnRK-20

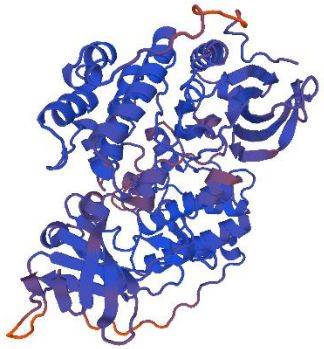
Fig. S65. HvSnRK Structural analysis protein



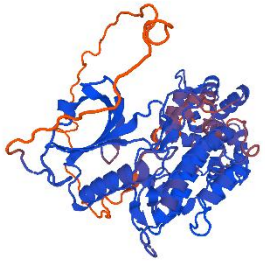
HvSnRK-21



HvSnRK-22

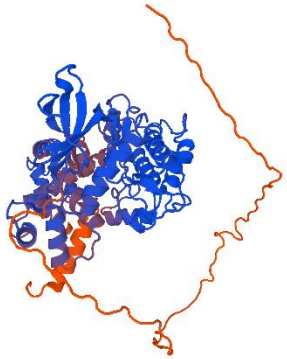


HvSnRK-23

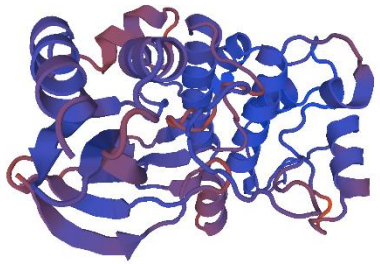


HvSnRK-24

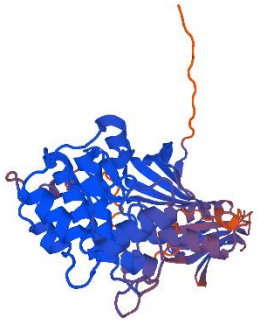
Fig. S66. HvSnRK Structural analysis protein



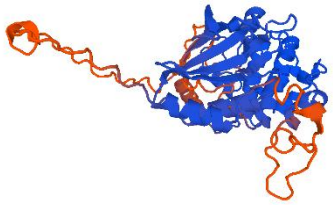
HvSnRK-25



HvSnRK-26

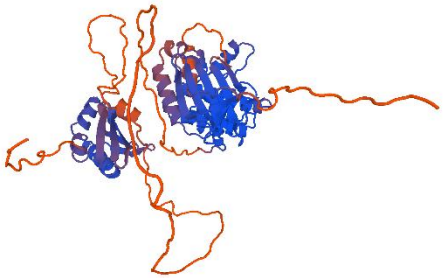


HvSnRK-27

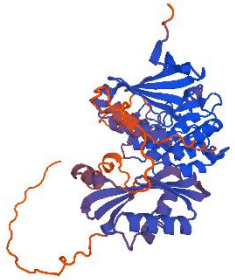


HvSnRK-28

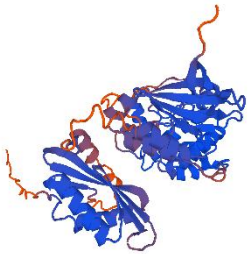
Fig. S67. HvSnRK Structural analysis protein



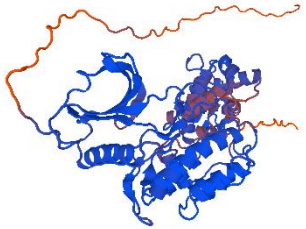
HvSnRK-29



HvSnRK-30

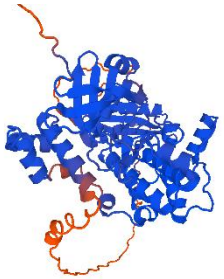


HvSnRK-31

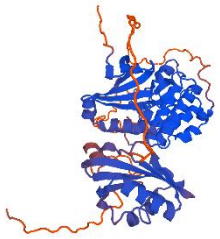


HvSnRK-32

Fig. S68. HvSnRK Structural analysis protein

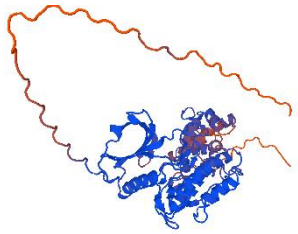


HvSnRK-33



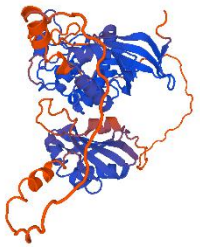
HvSnRK-34

HvSnRK-35

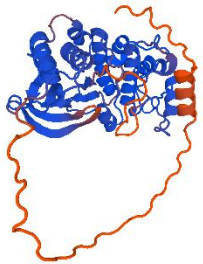


HvSnRK-36

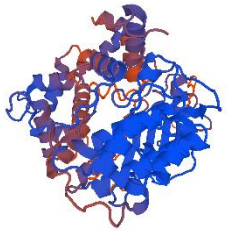
Fig. S69. HvSnRK Structural analysis protein



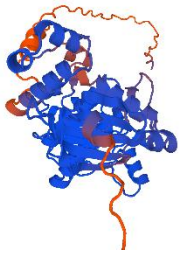
HvSnRK-37



HvSnRK-38

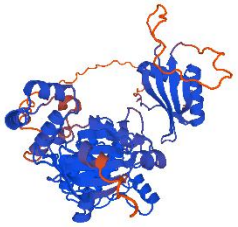


HvSnRK-39

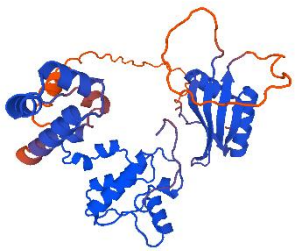


HvSnRK-40

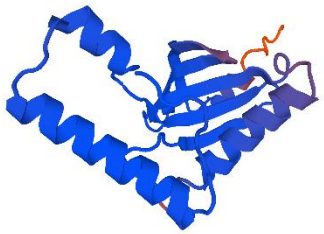
Fig. S70. HvSnRK Structural analysis protein



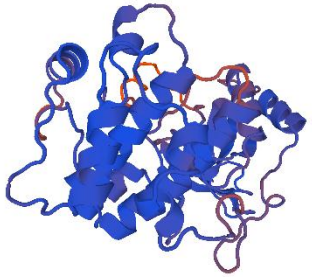
HvSnRK-41



HvSnRK-42

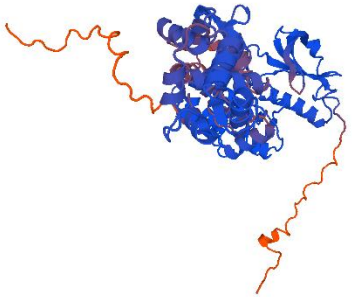


HvSnRK-43

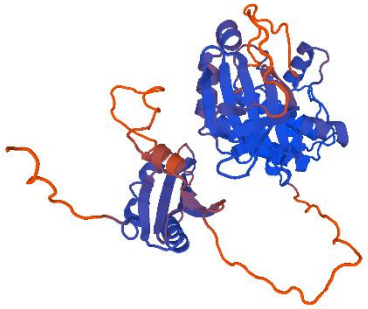


HvSnRK-44

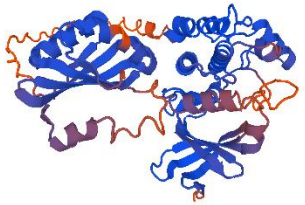
Fig. S71. HvSnRK Structural analysis protein



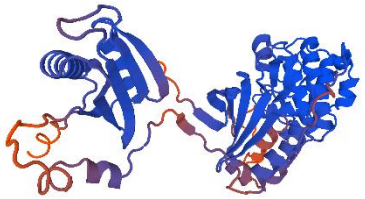
HvSnRK-45



HvSnRK-46



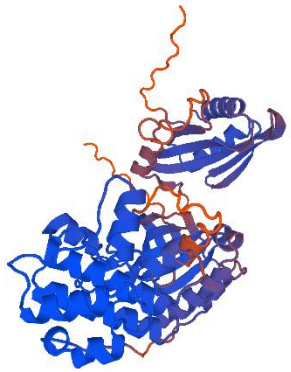
HvSnRK-47



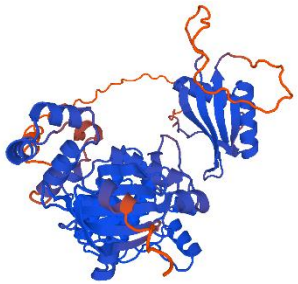
HvSnRK-48

Fig. S72. HvSnRK Structural analysis protein

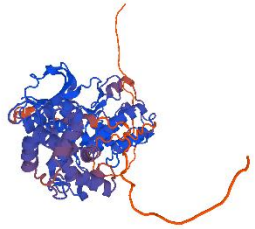
HvSnRK-49



HvSnRK-50

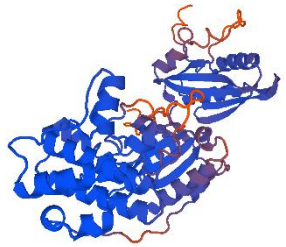


HvSnRK-51

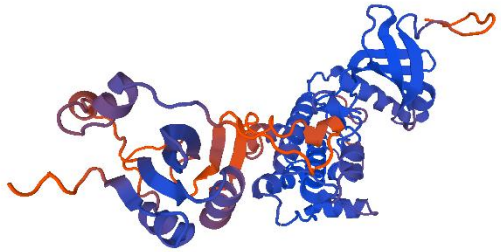


HvSnRK-52

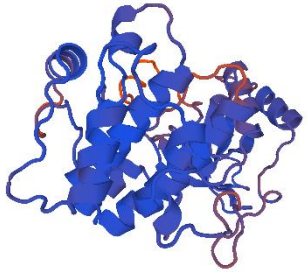
Fig. S73. HvSnRK Structural analysis protein



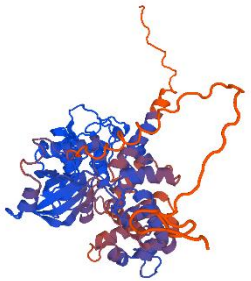
HvSnRK-53



HvSnRK-54

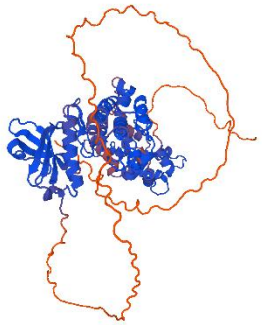


HvSnRK-55

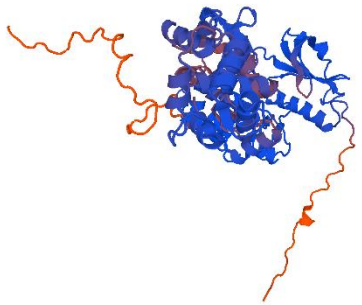


HvSnRK-56

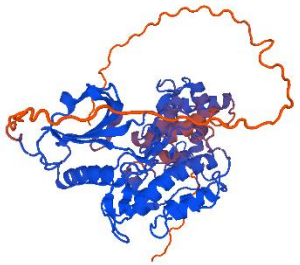
Fig. S74. HvSnRK Structural analysis protein



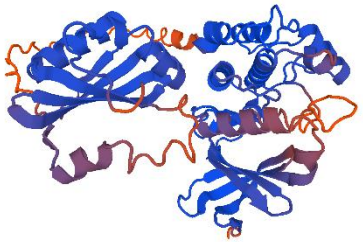
HvSnRK-57



HvSnRK-58

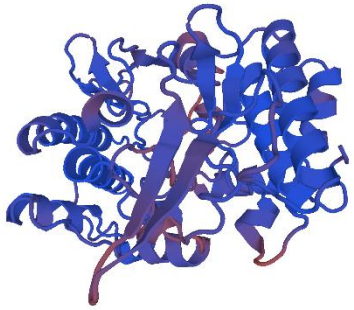


HvSnRK-59

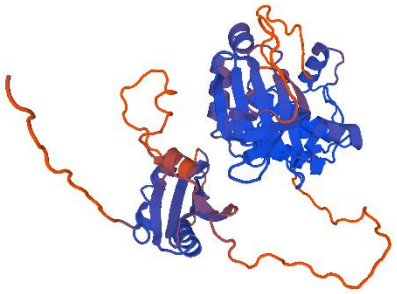


HvSnRK-60

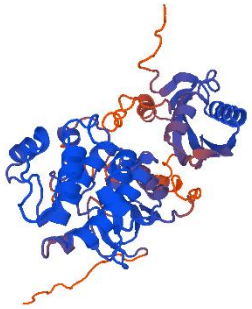
Fig. S75. HvSnRK Structural analysis protein



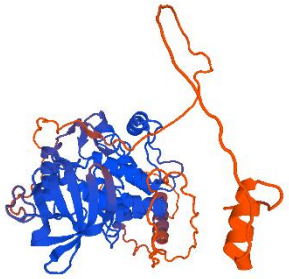
HvSnRK-61



HvSnRK-62

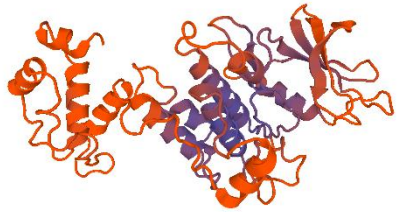


HvSnRK-63

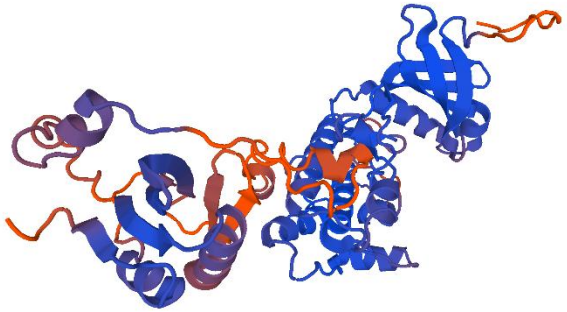


HvSnRK-64

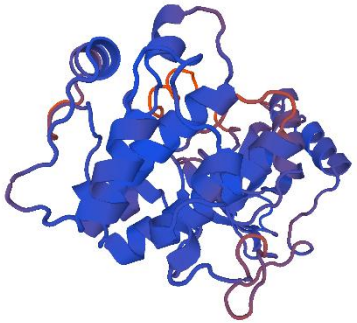
Fig. S76. HvSnRK Structural analysis protein



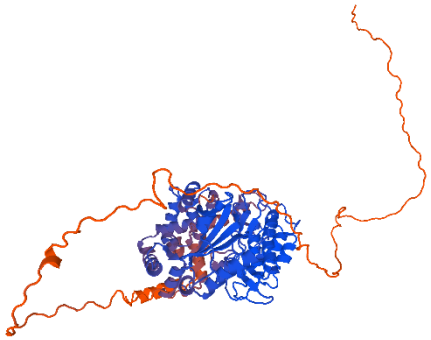
HvSnRK-65



HvSnRK-66

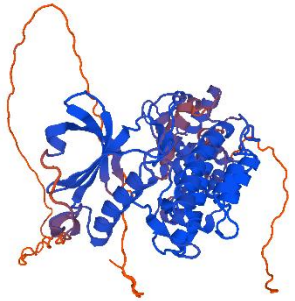


HvSnRK-67

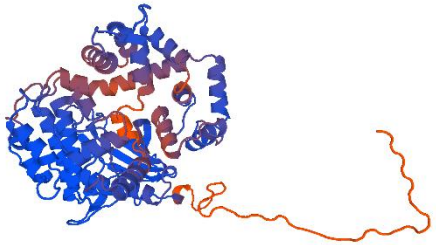


HvSnRK-68

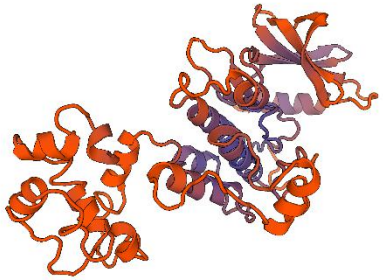
Fig. S77. HvSnRK Structural analysis protein



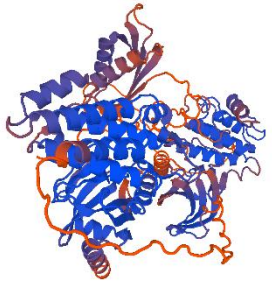
HvSnRK-69



HvSnRK-70

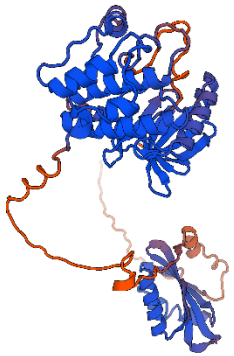


HvSnRK-71

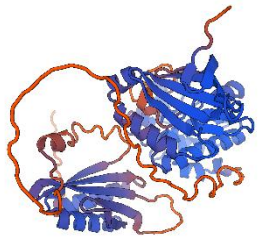


HvSnRK-72

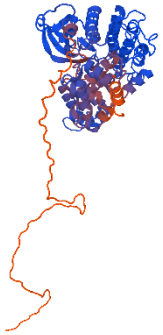
Fig. S78. HvSnRK Structural analysis protein



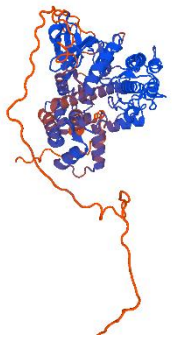
HvSnRK-73



HvSnRK-74

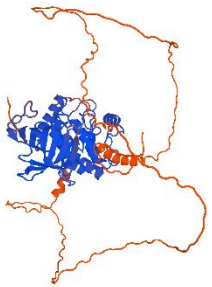


HvSnRK-75

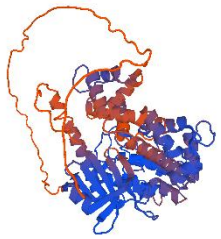


HvSnRK-76

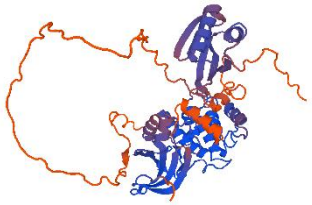
Fig. S79. HvSnRK Structural analysis protein



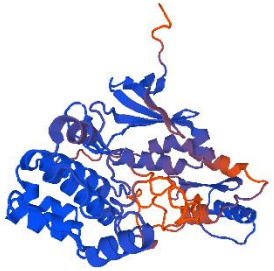
HvSnRK-77



HvSnRK-78

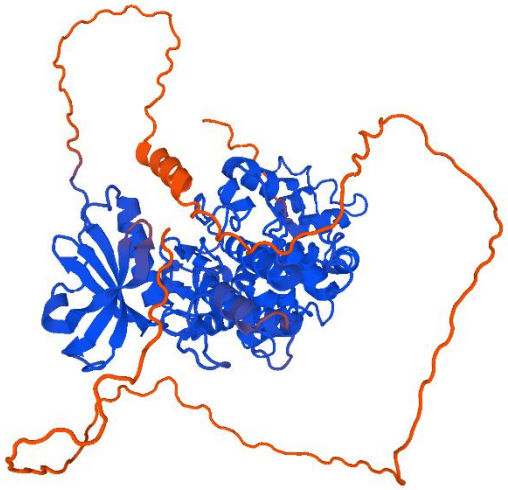


HvSnRK-79



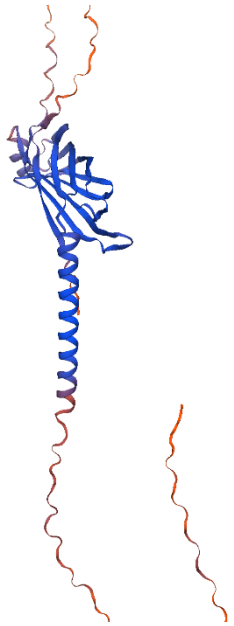
HvSnRK-80

Fig. S80. HvSnRK Structural analysis protein

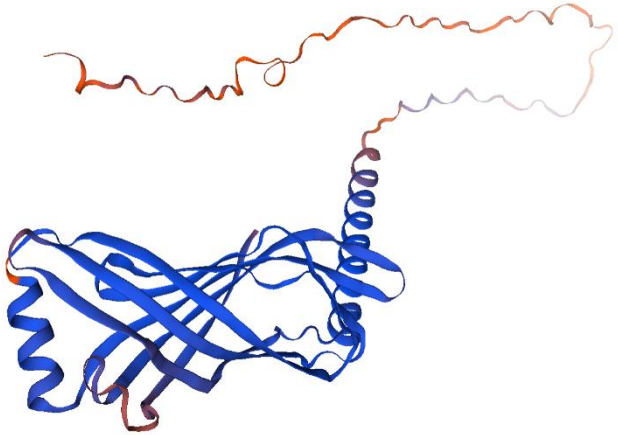


HvSnRK-81

Fig. S81. HvSnRK Structural analysis protein

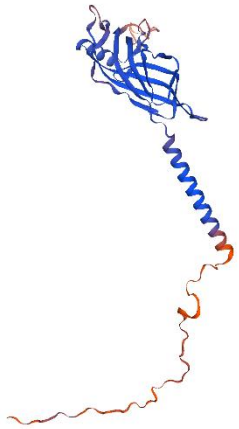


vLEA-1



HvLEA-2

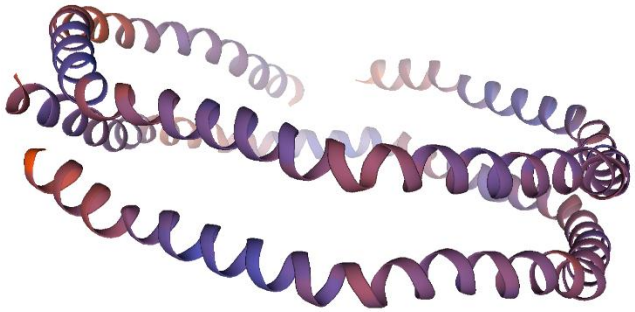
HvLEA-3



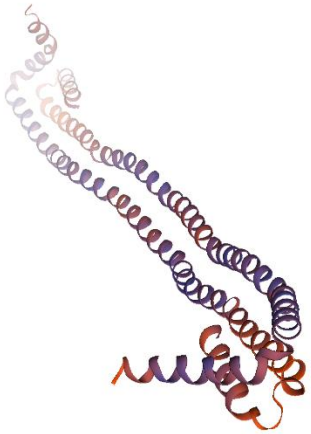
HvLEA-4

Fig. 82. HvLEA Structural analysis protein

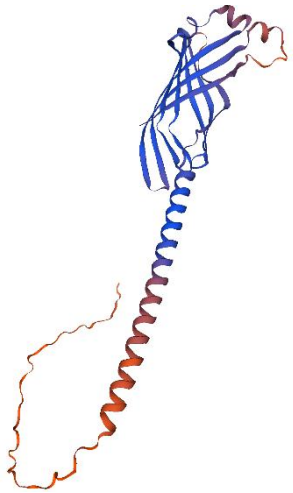
HvLEA-5



HvLEA-6

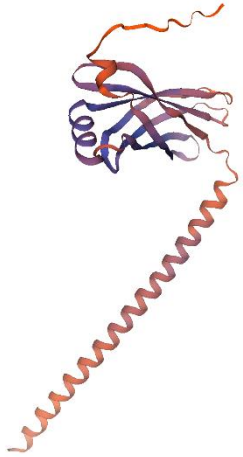


HvLEA-7

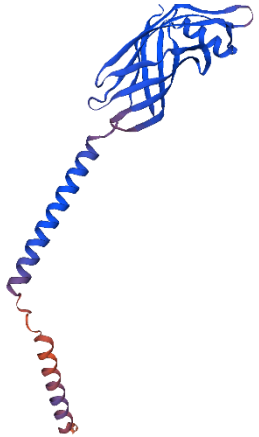


HvLEA-8

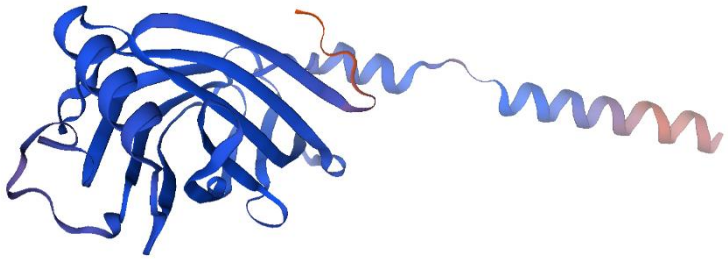
Fig. S83. HvLEA Structural analysis protein



HvLEA-9



HvLEA-10



HvLEA-11

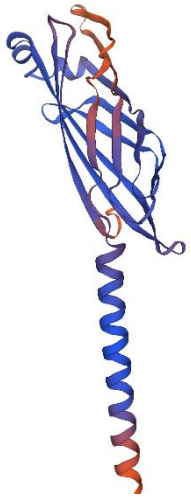
HvLEA-12

Fig. S84. HvLEA Structural analysis protein

HvLEA-13

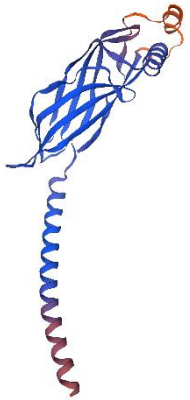
HvLEA-14

HvLEA-15

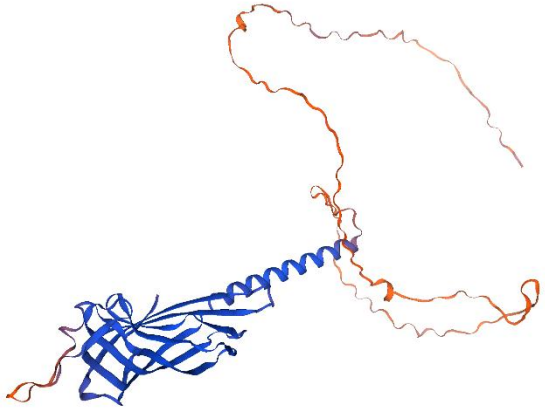


HvLEA-16

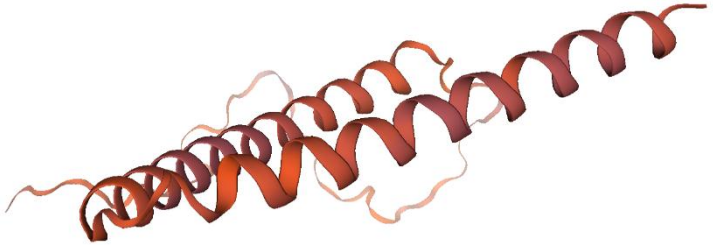
Fig. S85. HvLEA Structural analysis protein



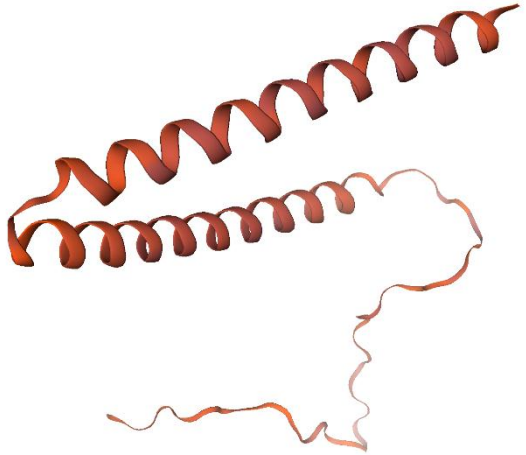
HvLEA-17



HvLEA-18



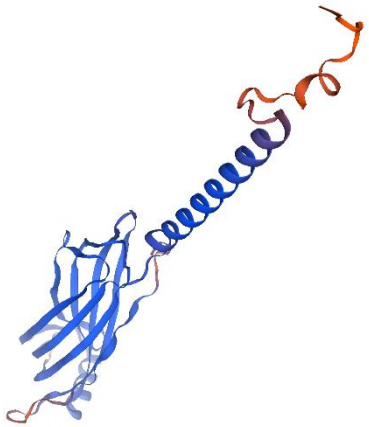
HvLEA-19



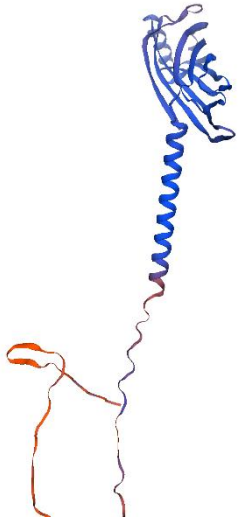
HvLEA-20

Fig. S86. HvLEA Structural analysis protein

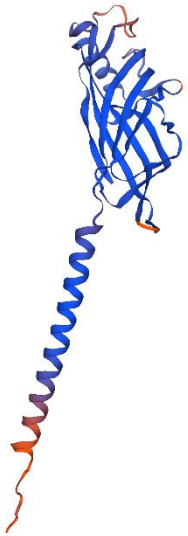
HvLEA-21



HvLEA-22

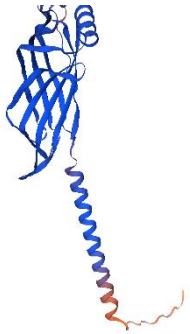


HvLEA-23

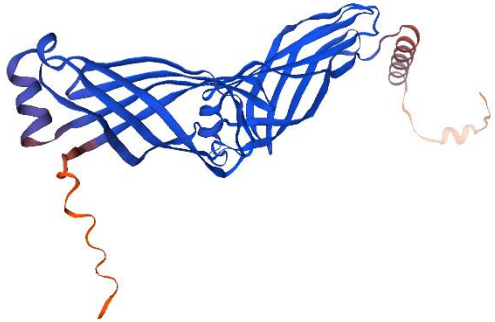


HvLEA-24

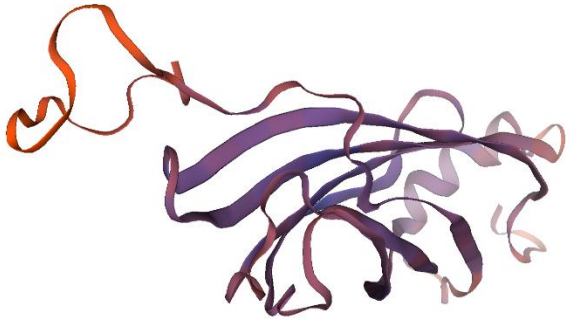
Fig. S87. HvLEA Structural analysis protein



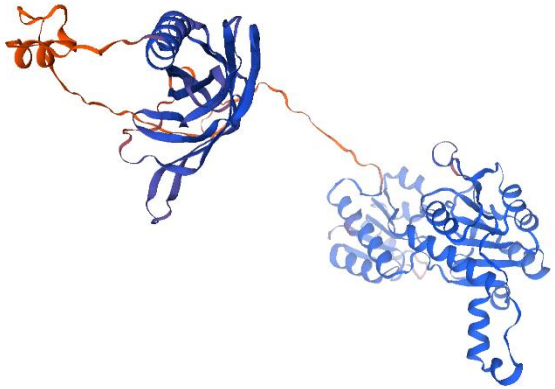
HvLEA-25



HvLEA-26

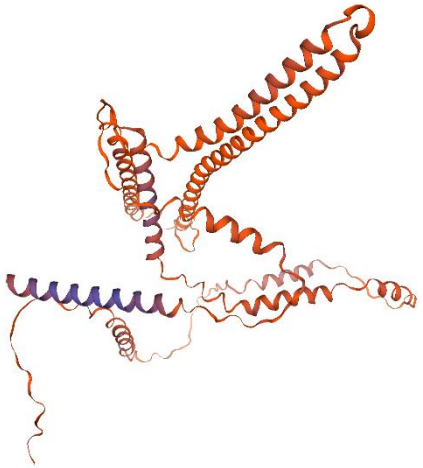


HvLEA-27

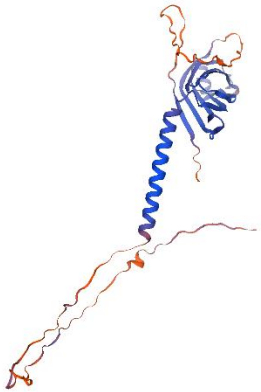


HvLEA-28

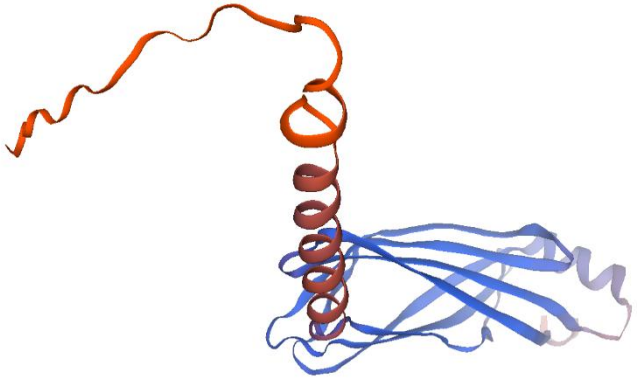
Fig. S88. HvLEA Structural analysis protein



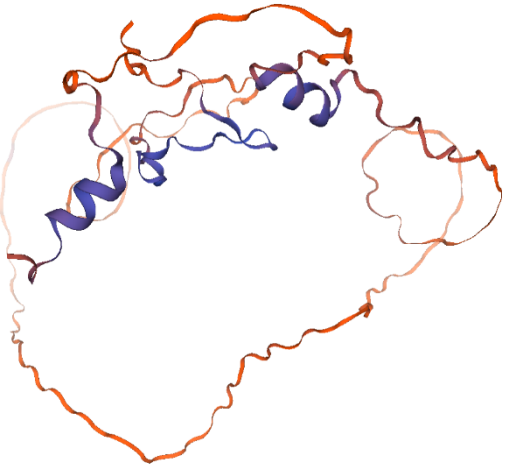
HvLEA-29



HvLEA-30



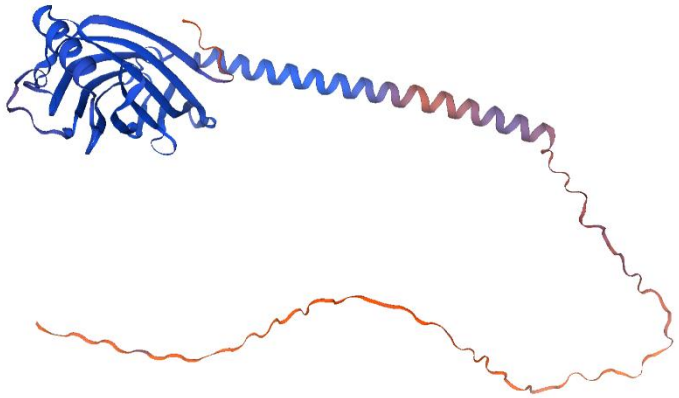
HvLEA-31



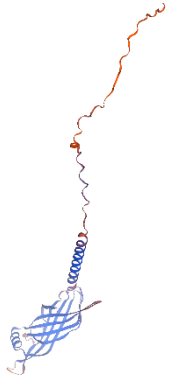
HvLEA-32

Fig. S89. HvLEA Structural analysis protein

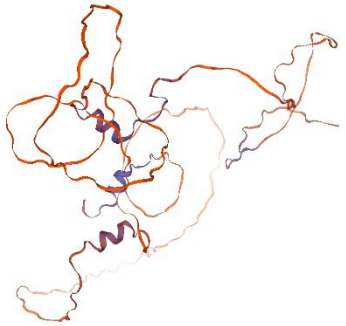
HvLEA-33



HvLEA-34

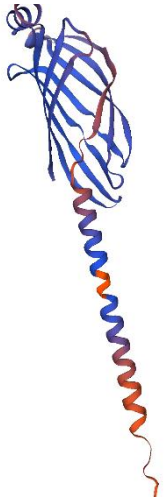


HvLEA-35

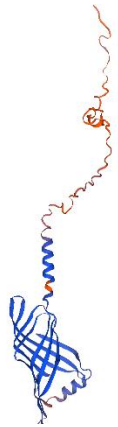


HvLEA-36

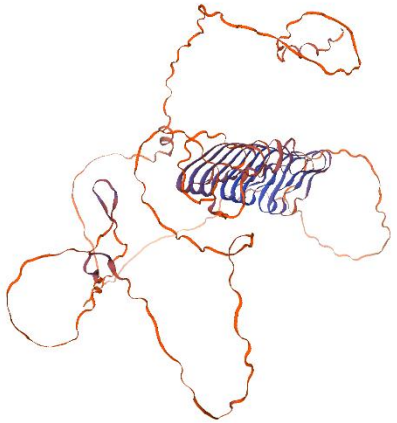
Fig. S90. HvLEA Structural analysis protein



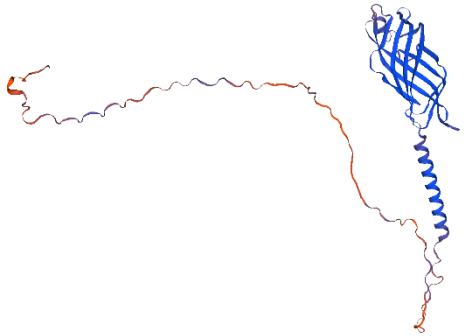
HvLEA-37



HvLEA-38

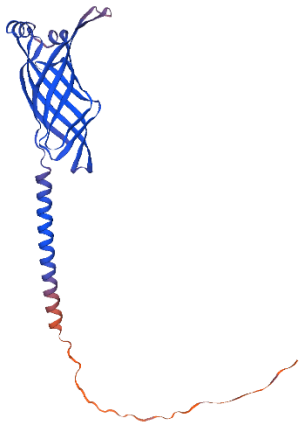


HvLEA-39

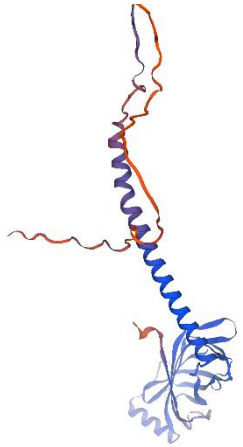


HvLEA-40

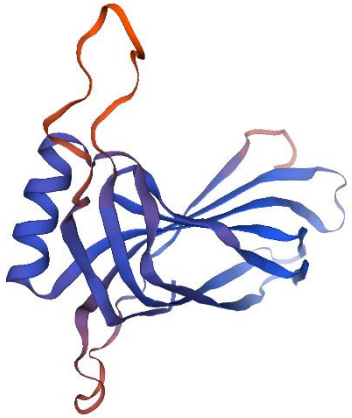
Fig. S91. HvLEA Structural analysis protein



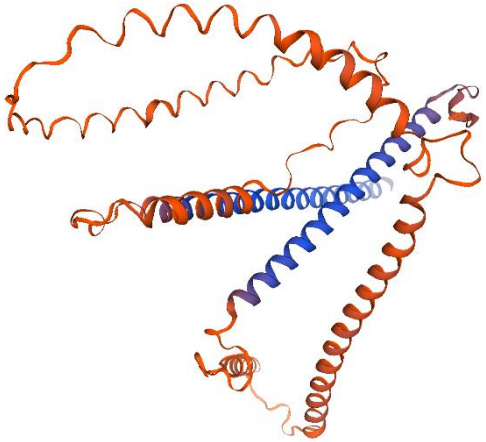
HvLEA-41



HvLEA-42

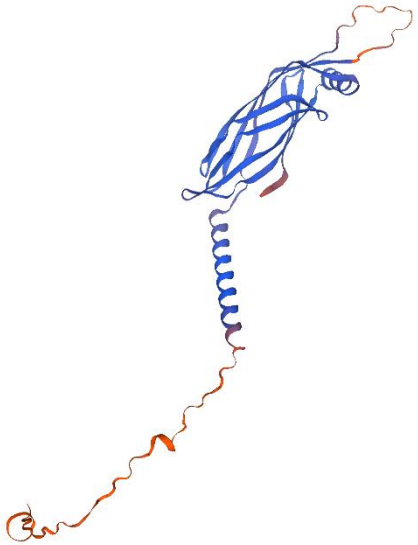


HvLEA-43

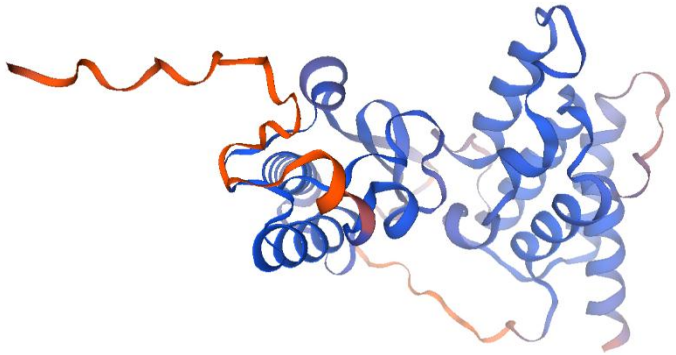


HvLEA-44

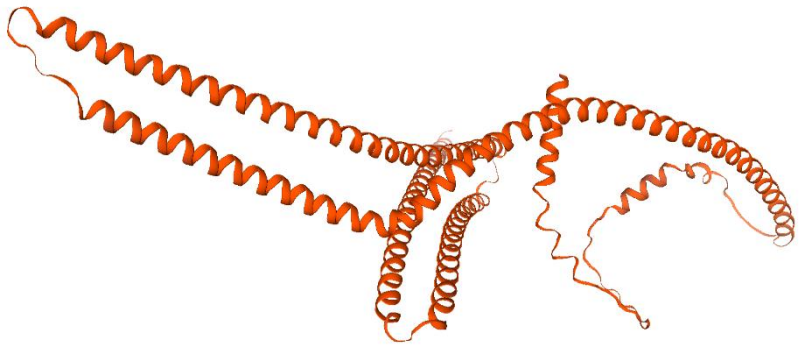
Fig. S92. HvLEA Structural analysis protein



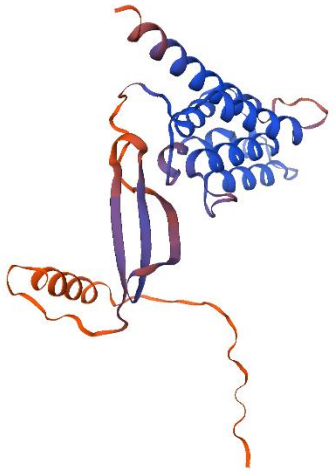
HvLEA-45



HvLEA-46

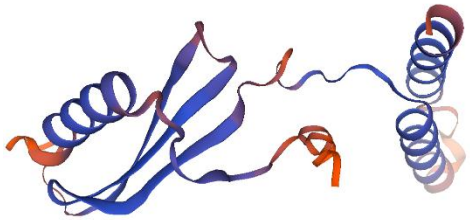


HvLEA-47

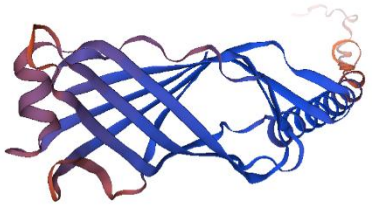


HvLEA-48

Fig. S93. HvLEA Structural analysis protein

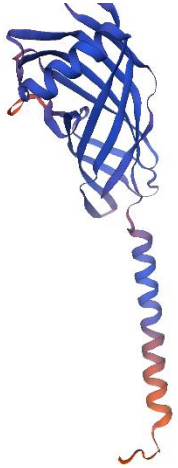


HvLEA-49



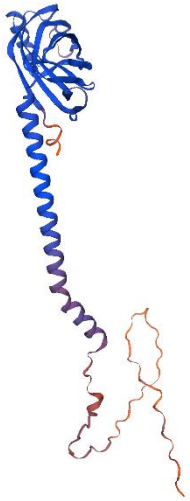
HvLEA-50

HvLEA-51

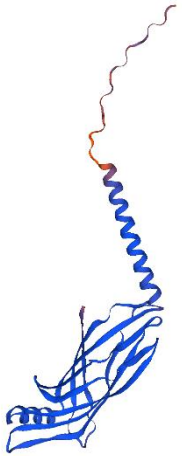


HvLEA-52

Fig. S94. HvLEA Structural analysis protein

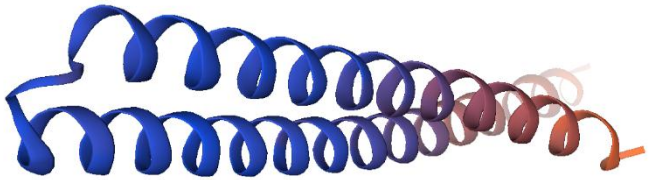


HvLEA-53



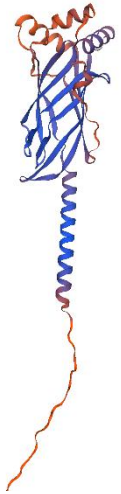
HvLEA-54

HvLEA-55

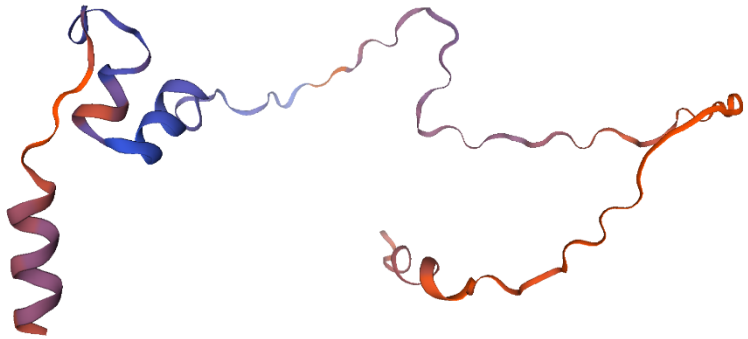


HvLEA-56

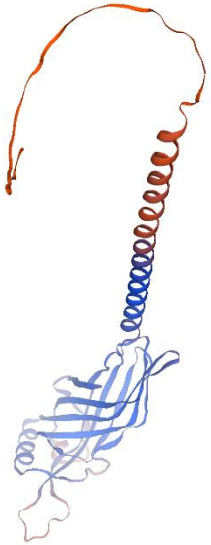
Fig. S95. HvLEA Structural analysis protein



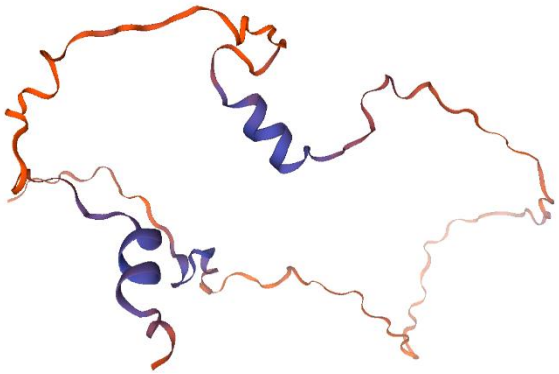
HvLEA-57



HvLEA-58

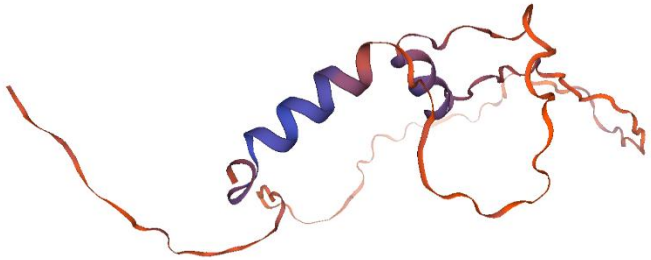


HvLEA-59

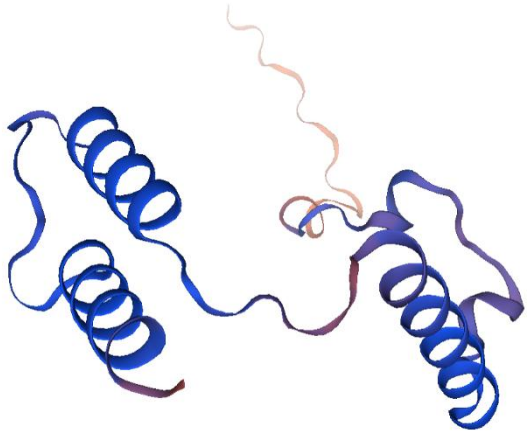


HvLEA-60

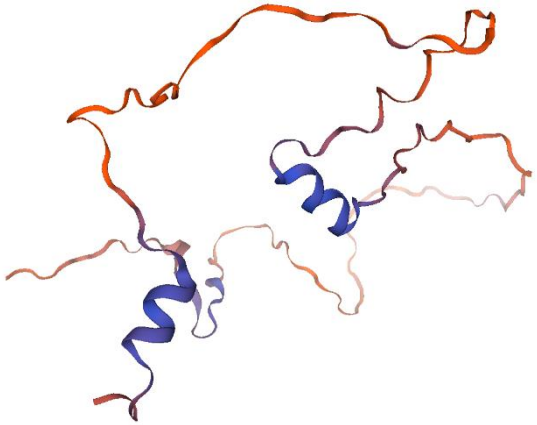
Fig. S96. HvLEA Structural analysis protein



HvLEA-61



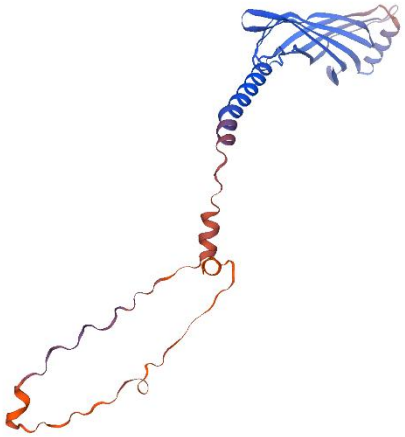
HvLEA-62



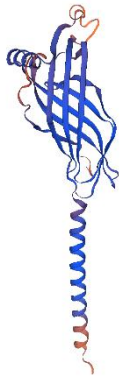
HvLEA-63

HvLEA-64

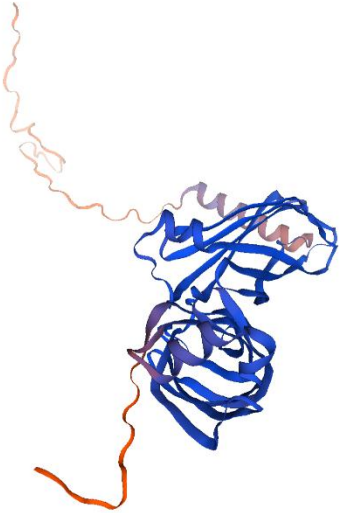
Fig. S97. HvLEA Structural analysis protein



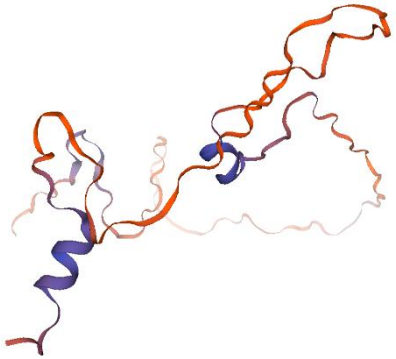
HvLEA-65



HvLEA-66

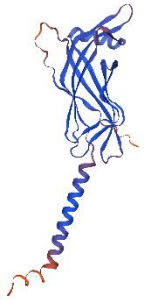


HvLEA-67

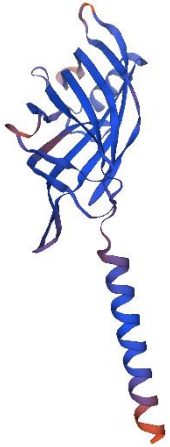


HvLEA-68

Fig. S98. HvLEA Structural analysis protein



HvLEA-69



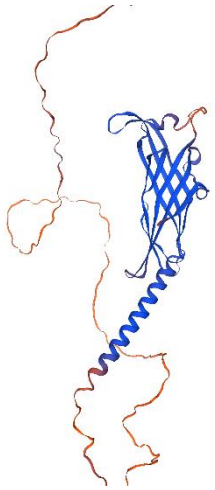
HvLEA-70

HvLEA-71

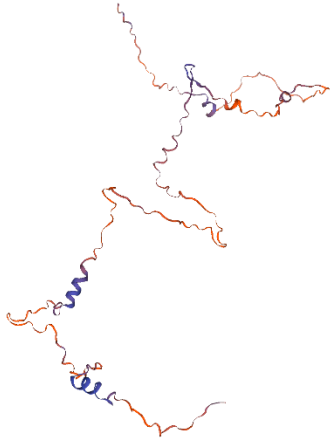
HvLEA-72

Fig. S99. HvLEA Structural analysis protein

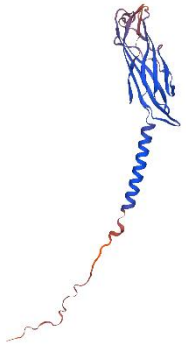
HvLEA-73



HvLEA-74



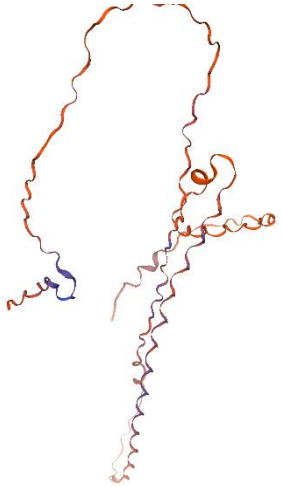
HvLEA-75



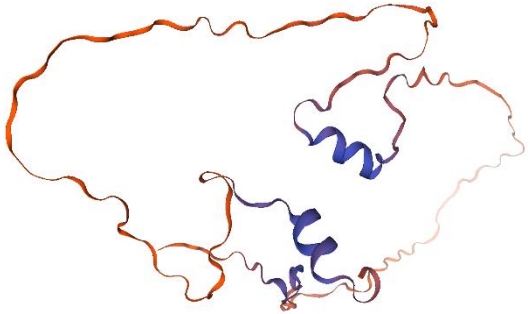
HvLEA-76

Fig. S100. HvLEA Structural analysis protein

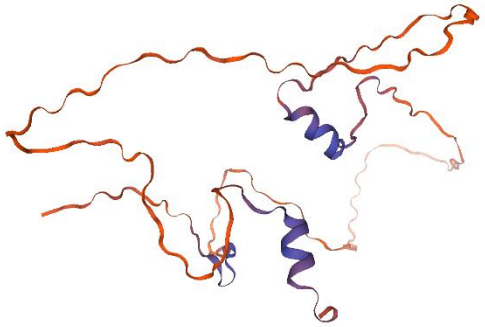
HvLEA-77



HvLEA-78

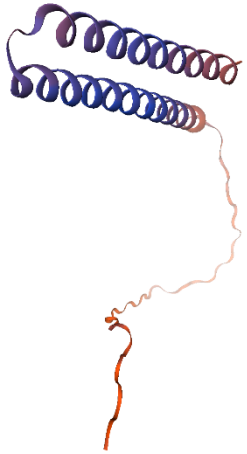


HvLEA-79

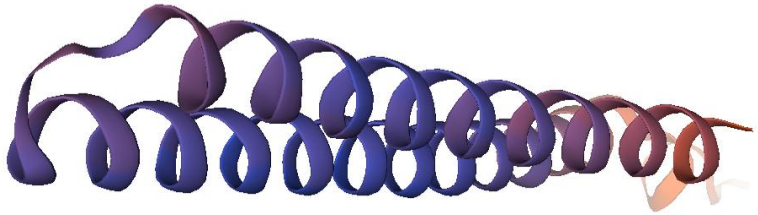


HvLEA-80

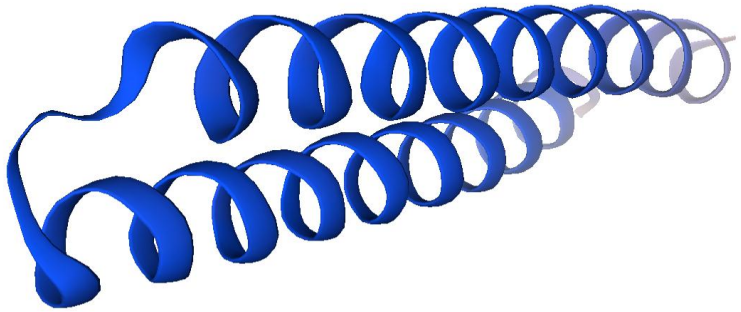
Fig. S101. HvLEA Structural analysis protein



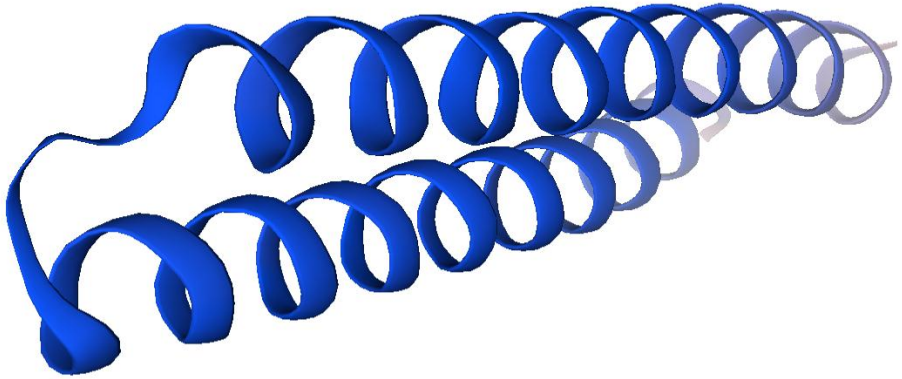
HvLEA-81



HvLEA-82



HvLEA-83



HvLEA-84

Fig. S102. HvLEA Structural analysis protein

HvLEA-85

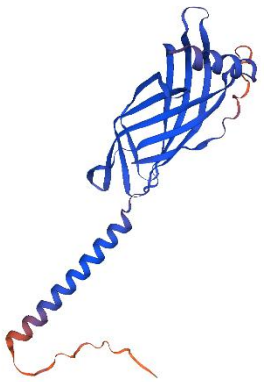
HvLEA-86

HvLEA-87

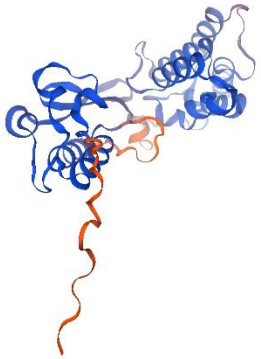
HvLEA-88

Fig. S103. HvLEA Structural analysis protein

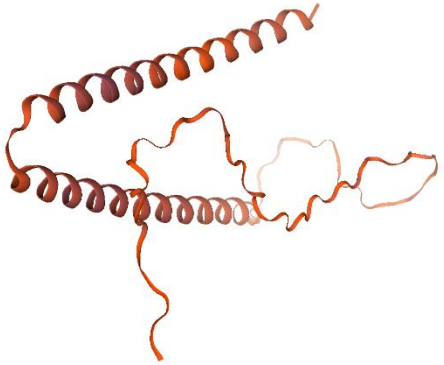
HvLEA-89



HvLEA-90



HvLEA-91



HvLEA-92

Fig. S104. HvLEA Structural analysis protein

HvLEA-93

Fig. S105. HvLEA Structural analysis protein

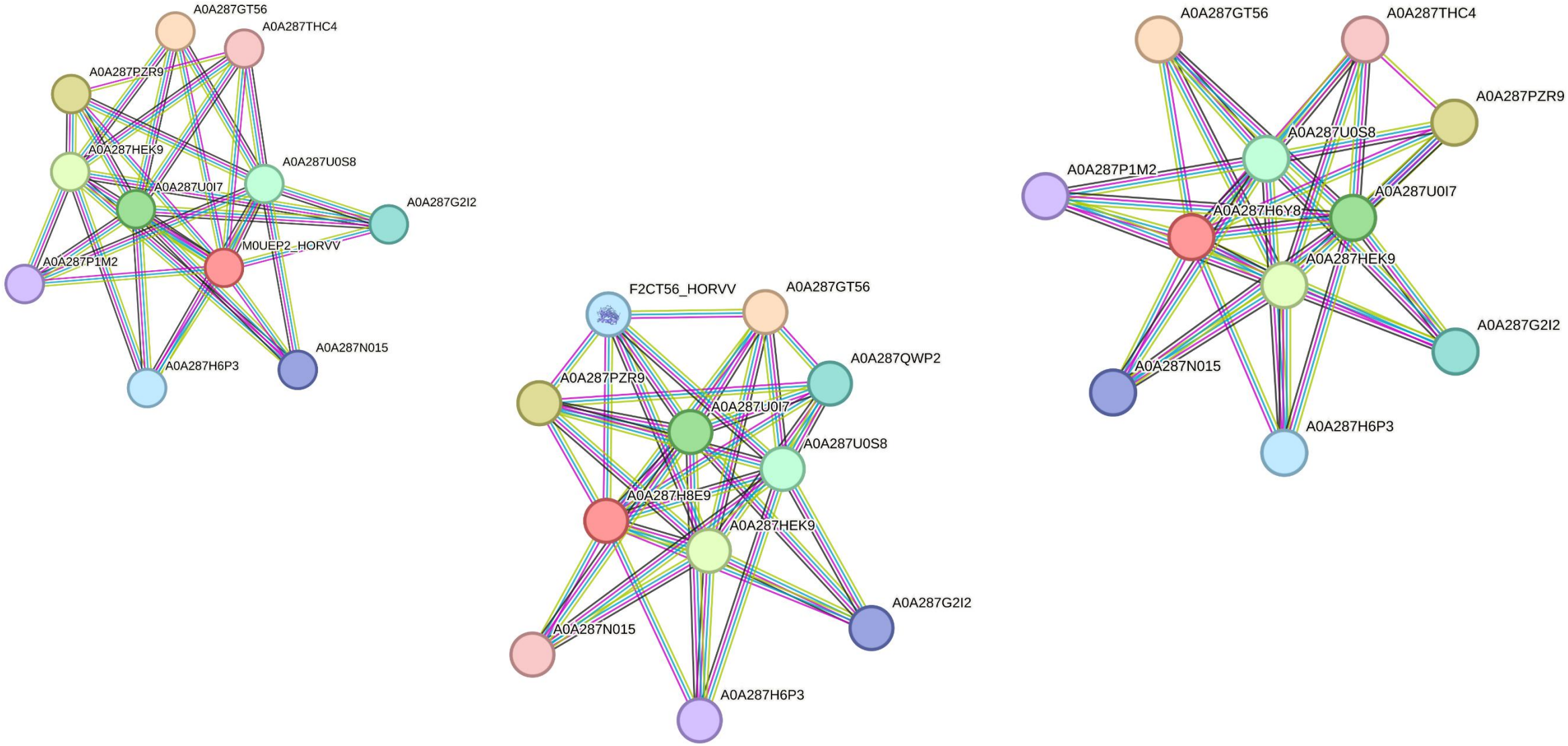


Fig. S106. Protein-protein interaction (PPI) network of HvSnRK clusters

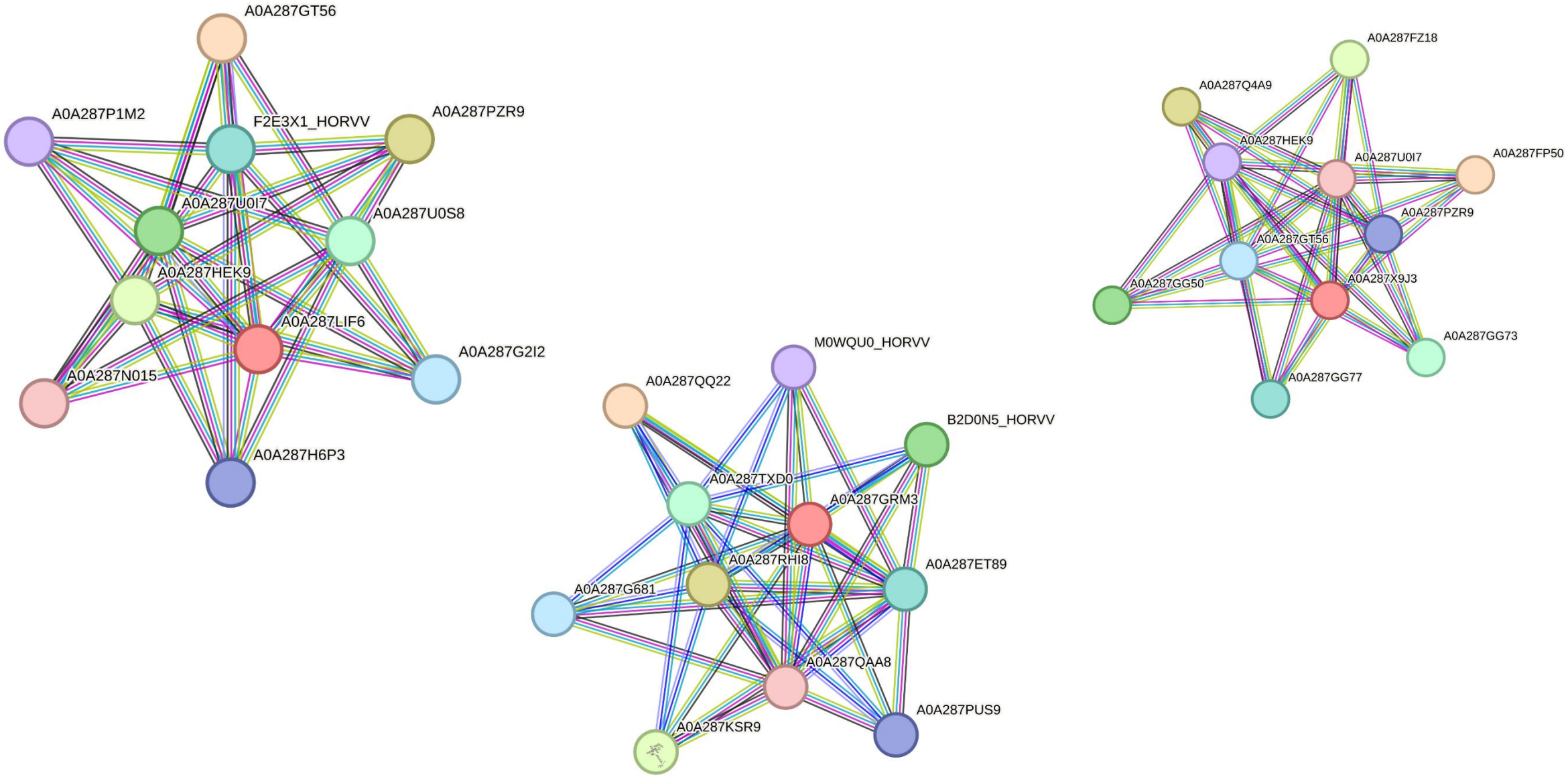


Fig. S107. Protein-protein interaction (PPI) network of HvSnRK clusters

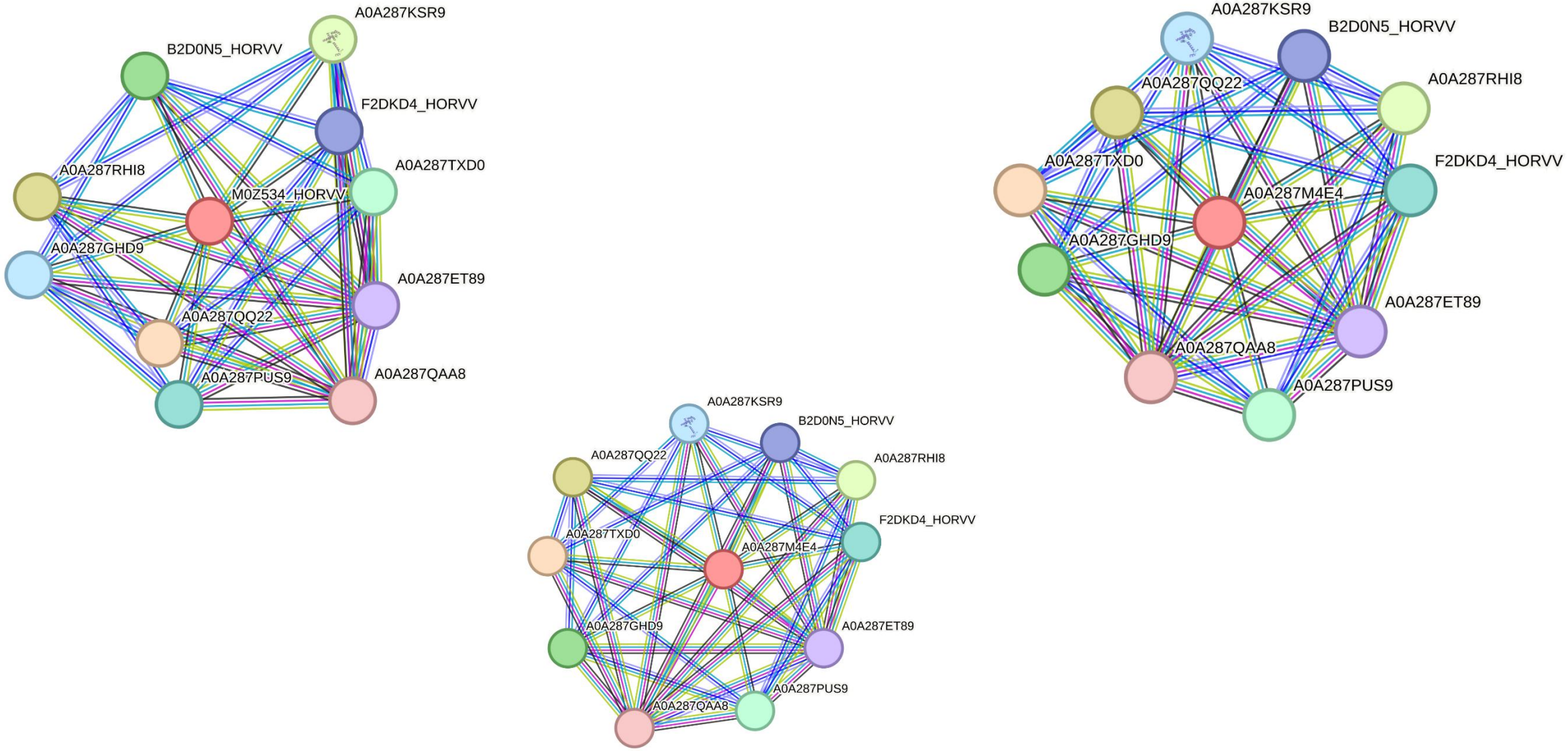
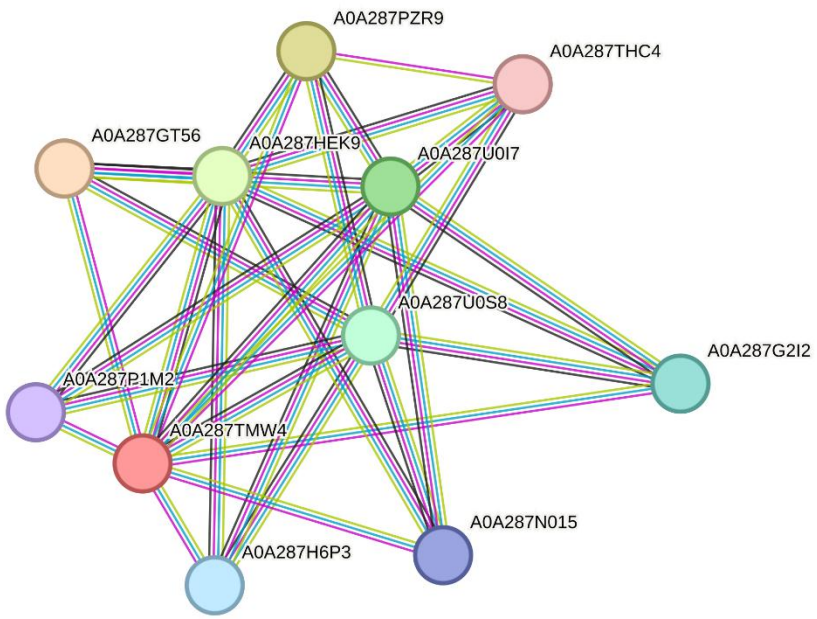
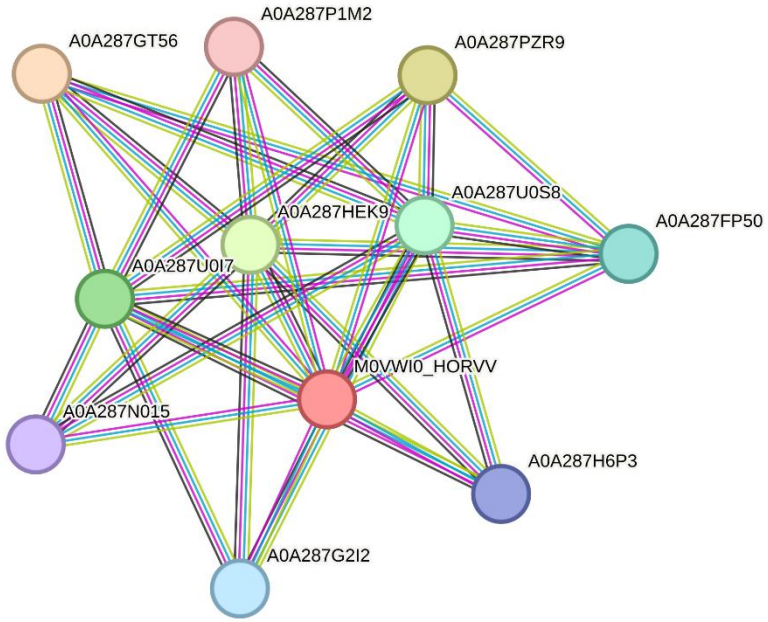


Fig. S108. Protein-protein interaction (PPI) network of HvSnRK clusters





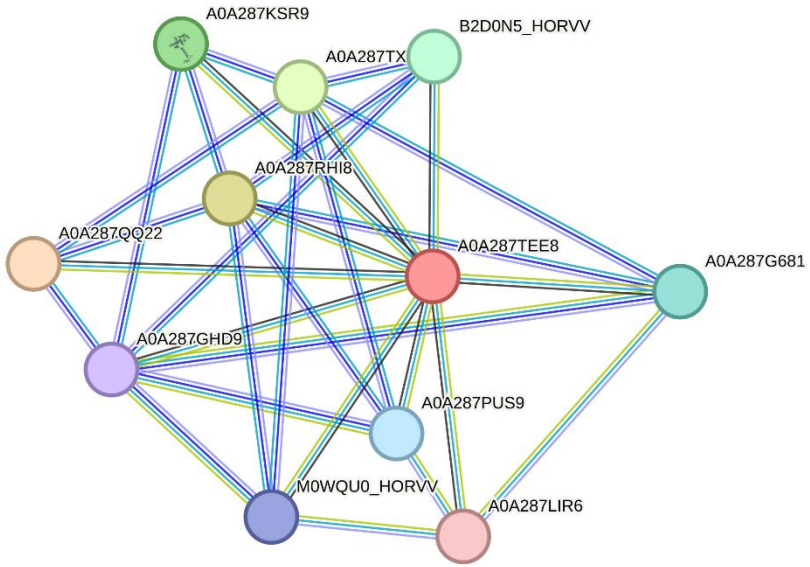


Fig. S109. Protein-protein interaction (PPI) network of HvSnRK clusters

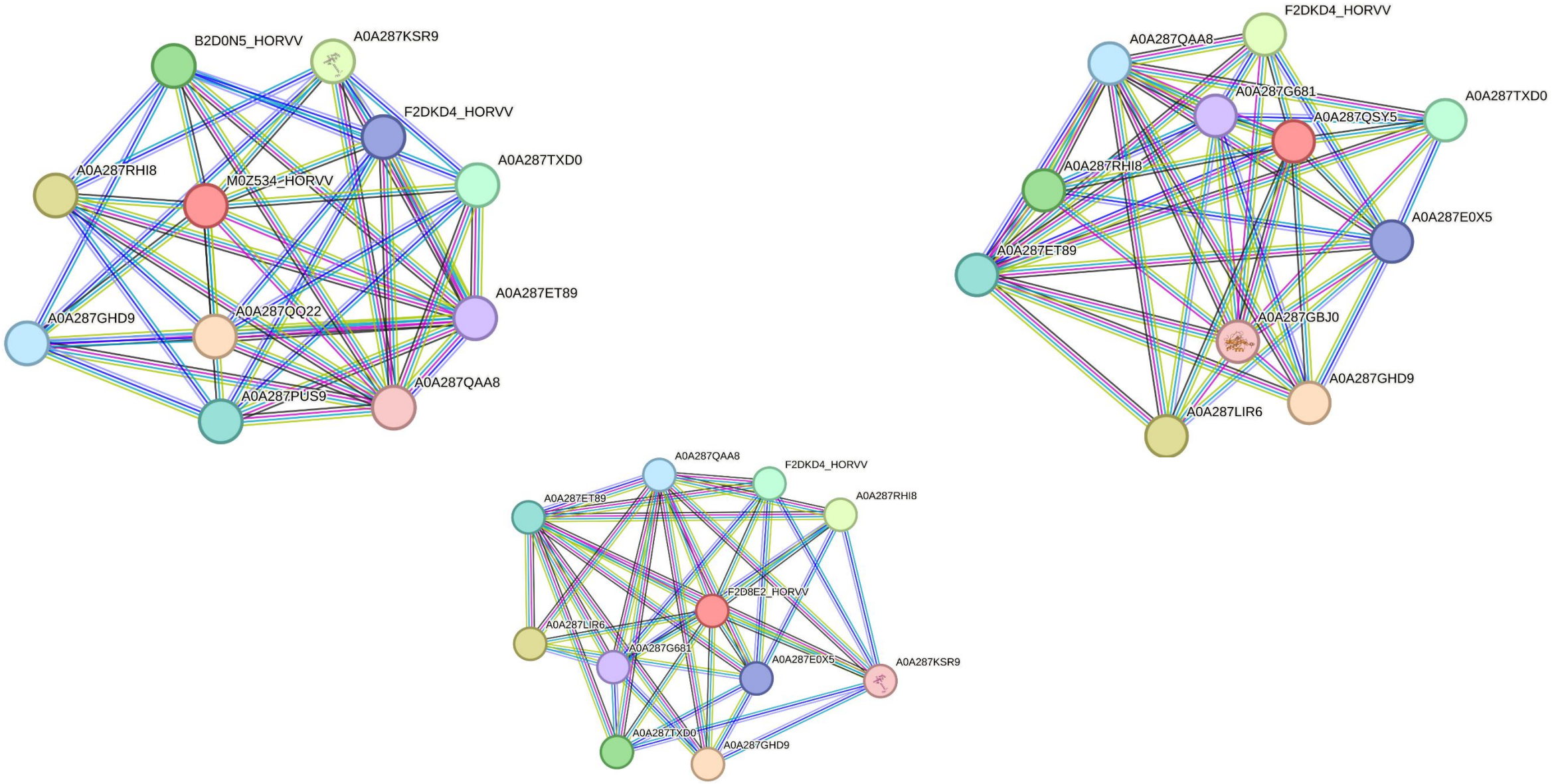
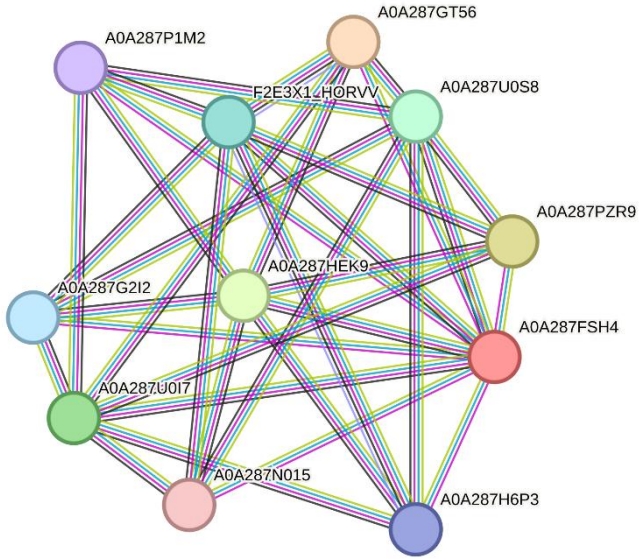
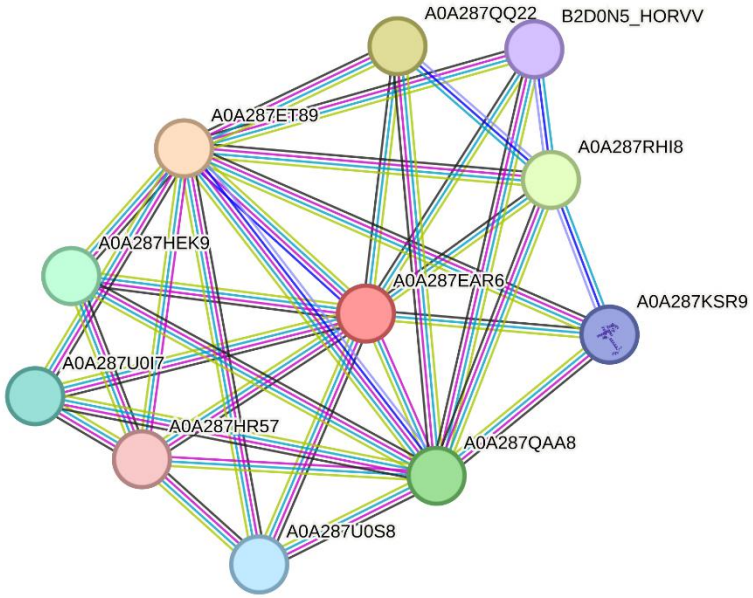


Fig. S110. Protein-protein interaction (PPI) network of HvSnRK clusters





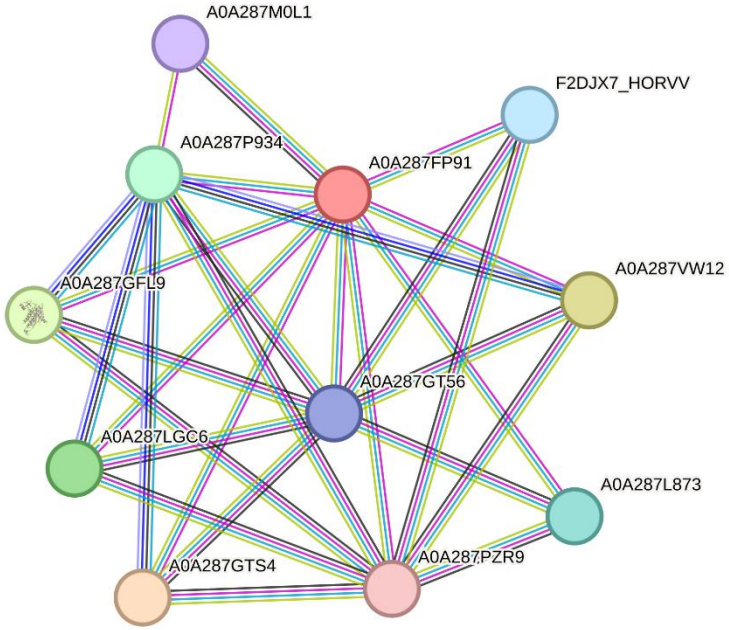


Fig. S111. Protein-protein interaction (PPI) network of HvSnRK clusters

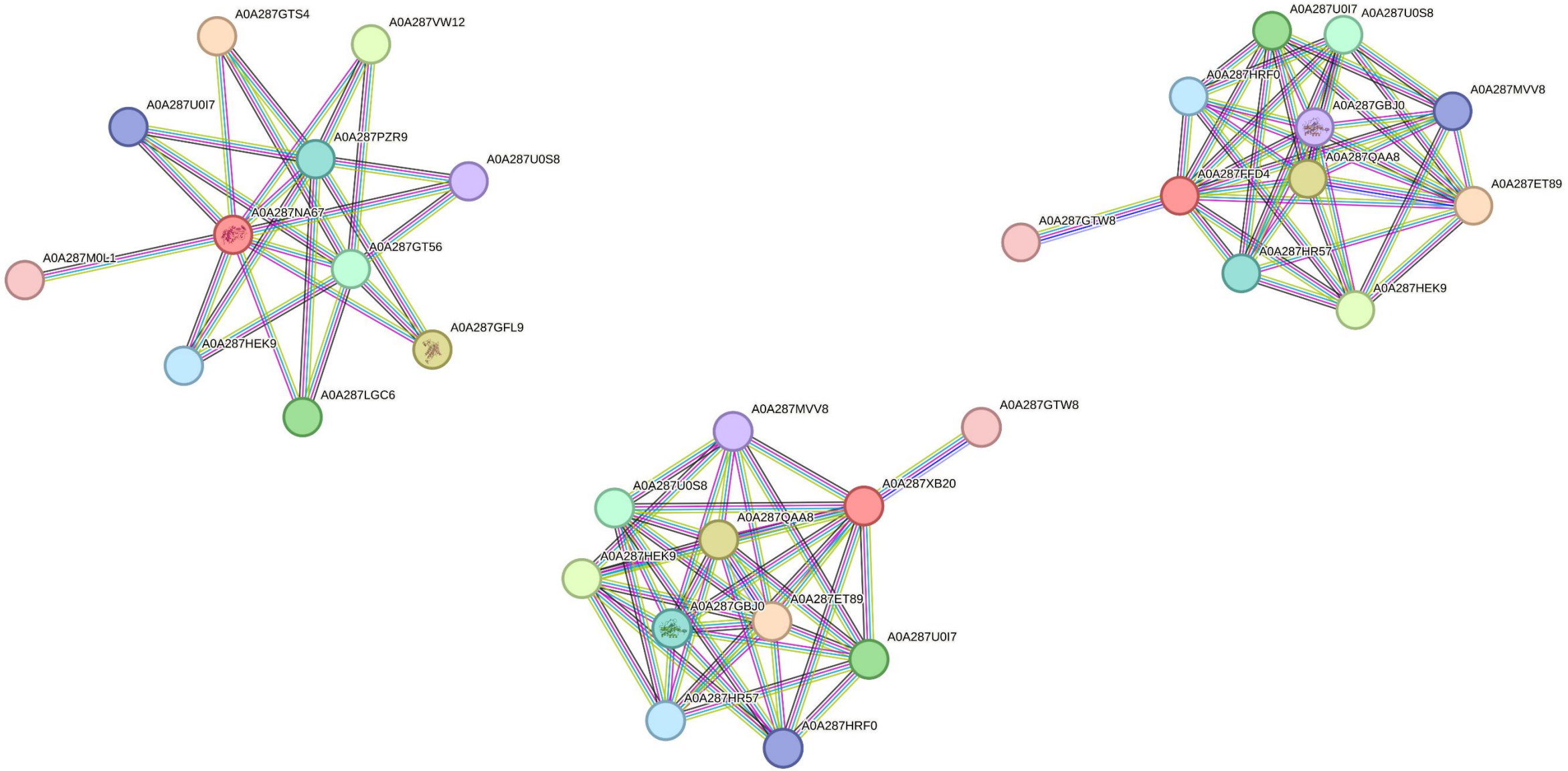


Fig. S112. Protein-protein interaction (PPI) network of HvSnRK clusters

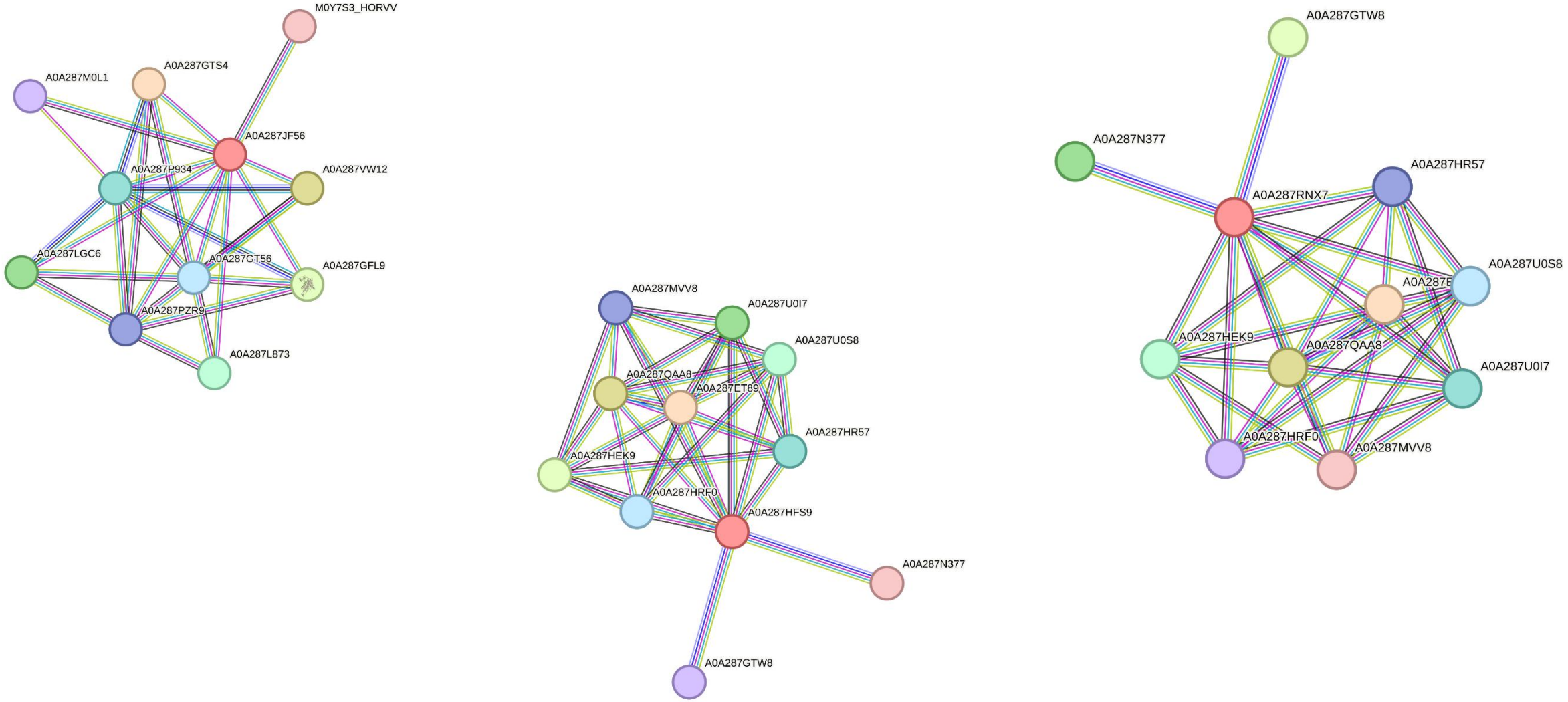
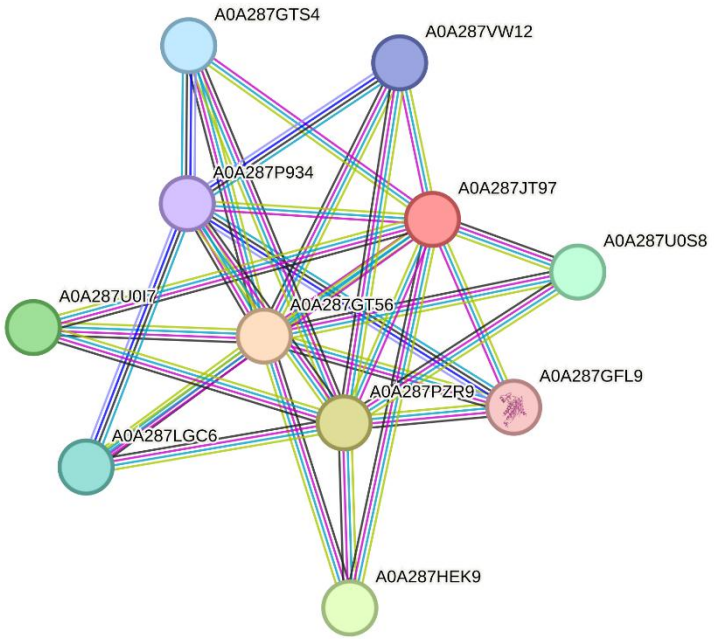
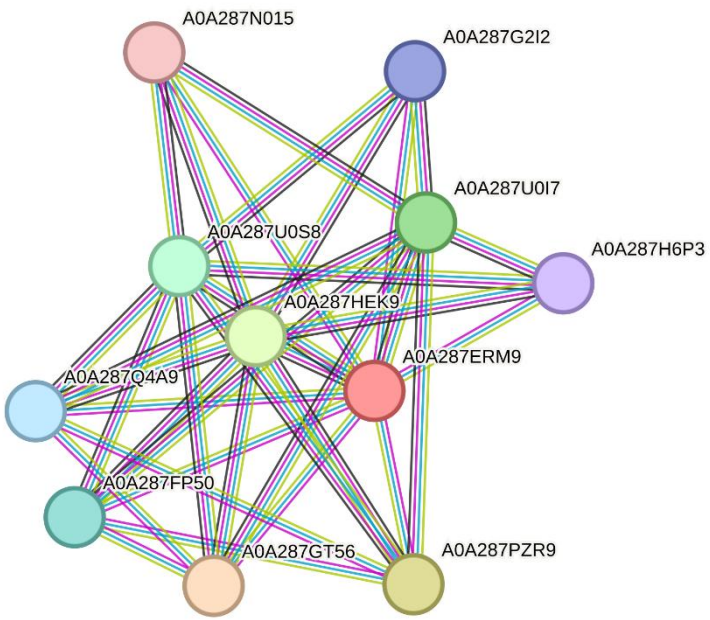


Fig. S113. Protein-protein interaction (PPI) network of HvSnRK clusters





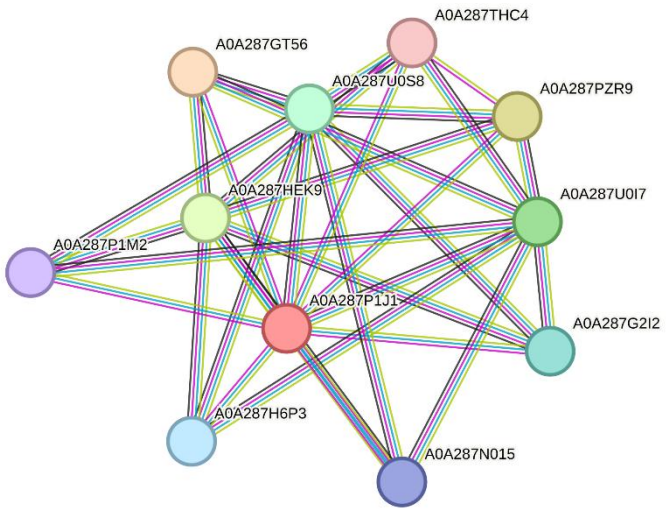
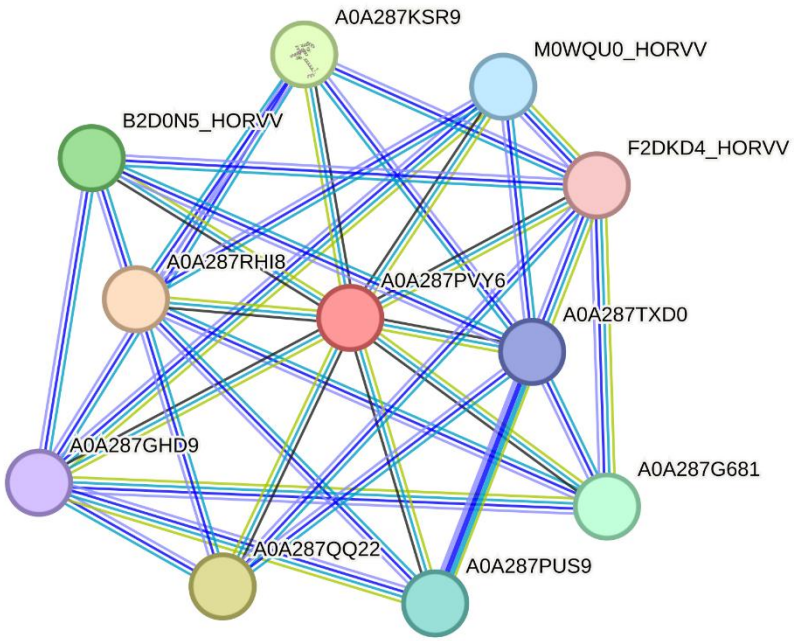
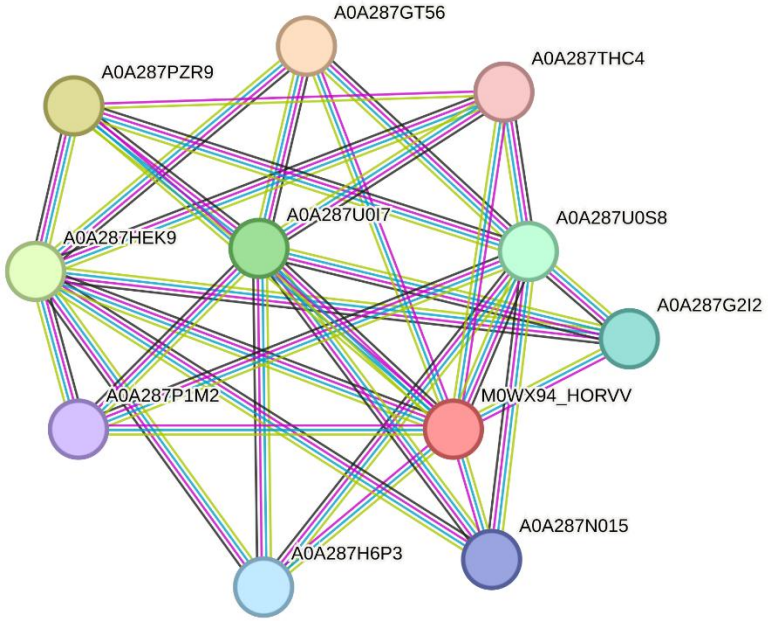


Fig. S114. Protein-protein interaction (PPI) network of HvSnRK clusters





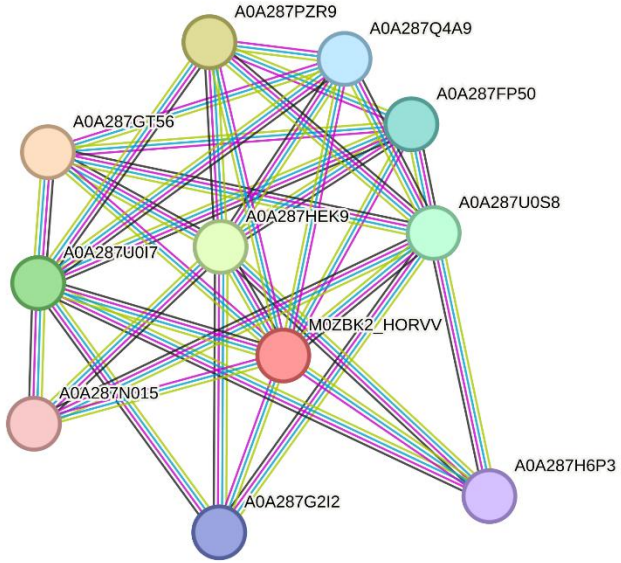
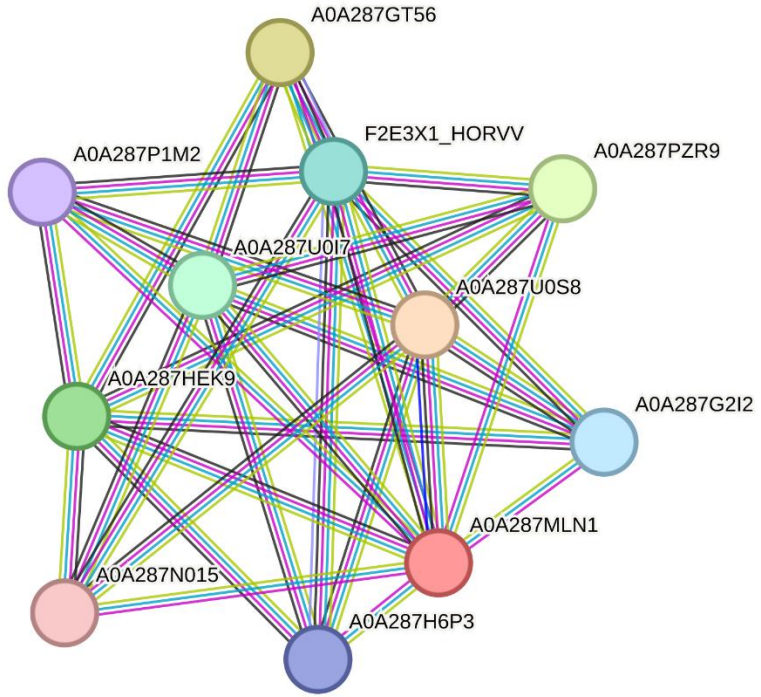
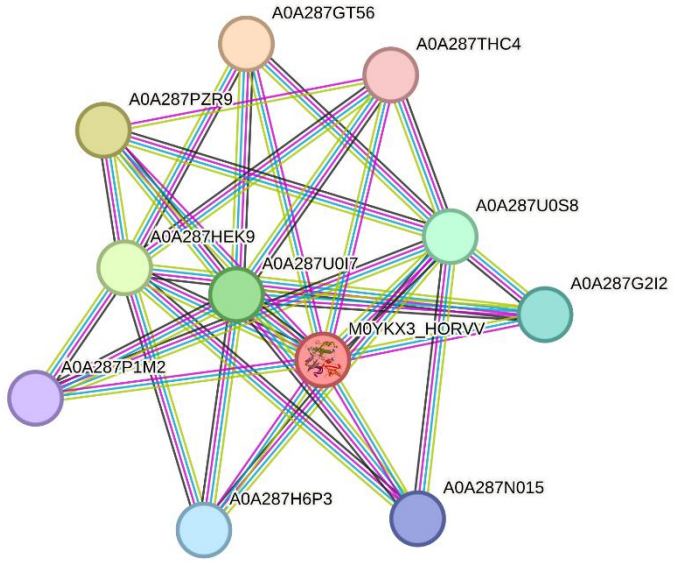


Fig. S115. Protein-protein interaction (PPI) network of HvSnRK clusters





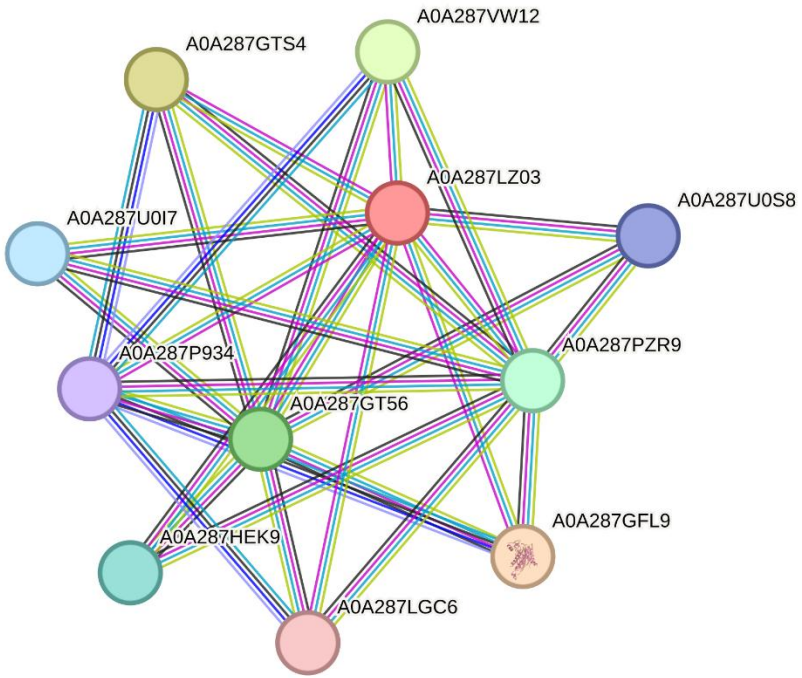


Fig. S116. Protein-protein interaction (PPI) network of HvSnRK clusters

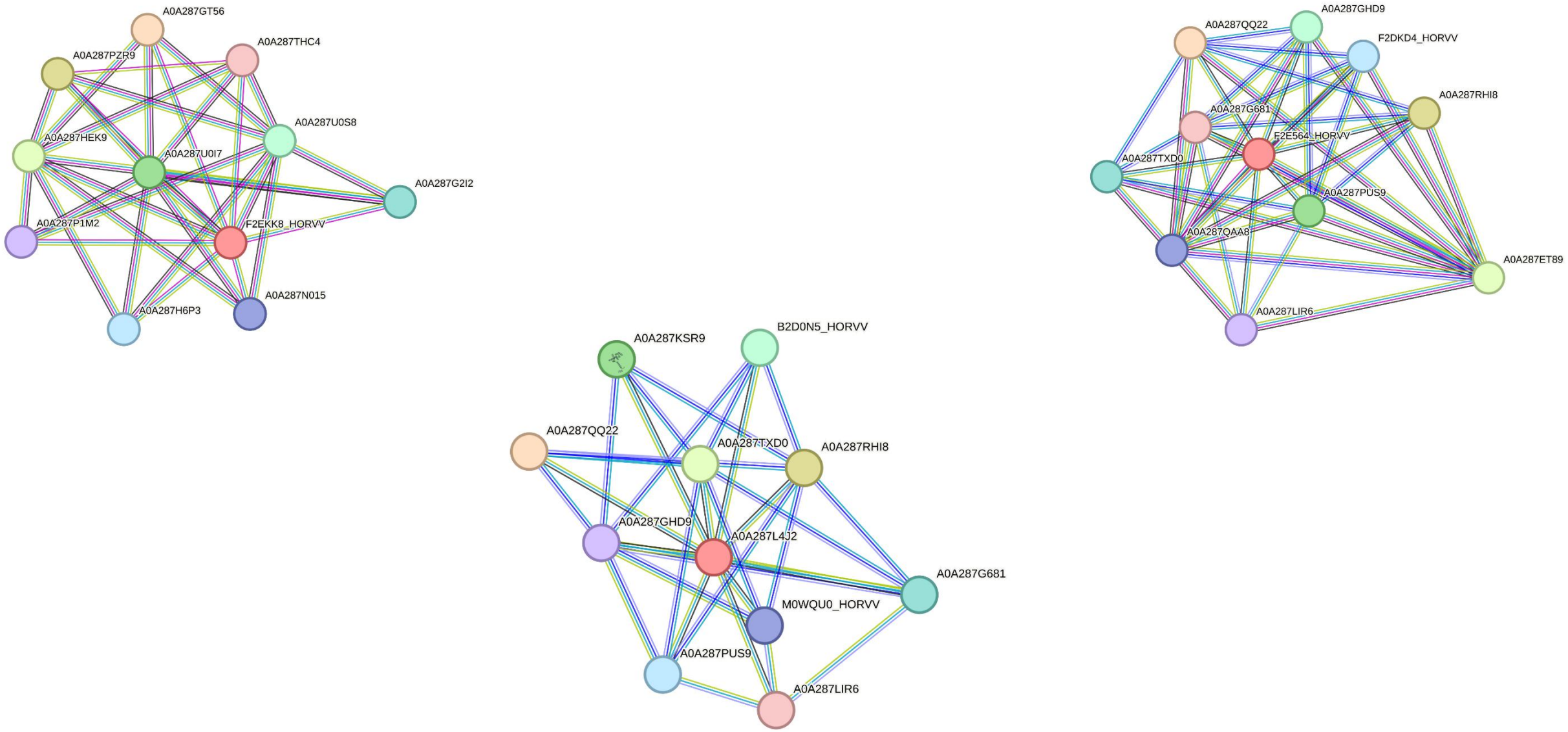


Fig. S117. Protein-protein interaction (PPI) network of HvSnRK clusters

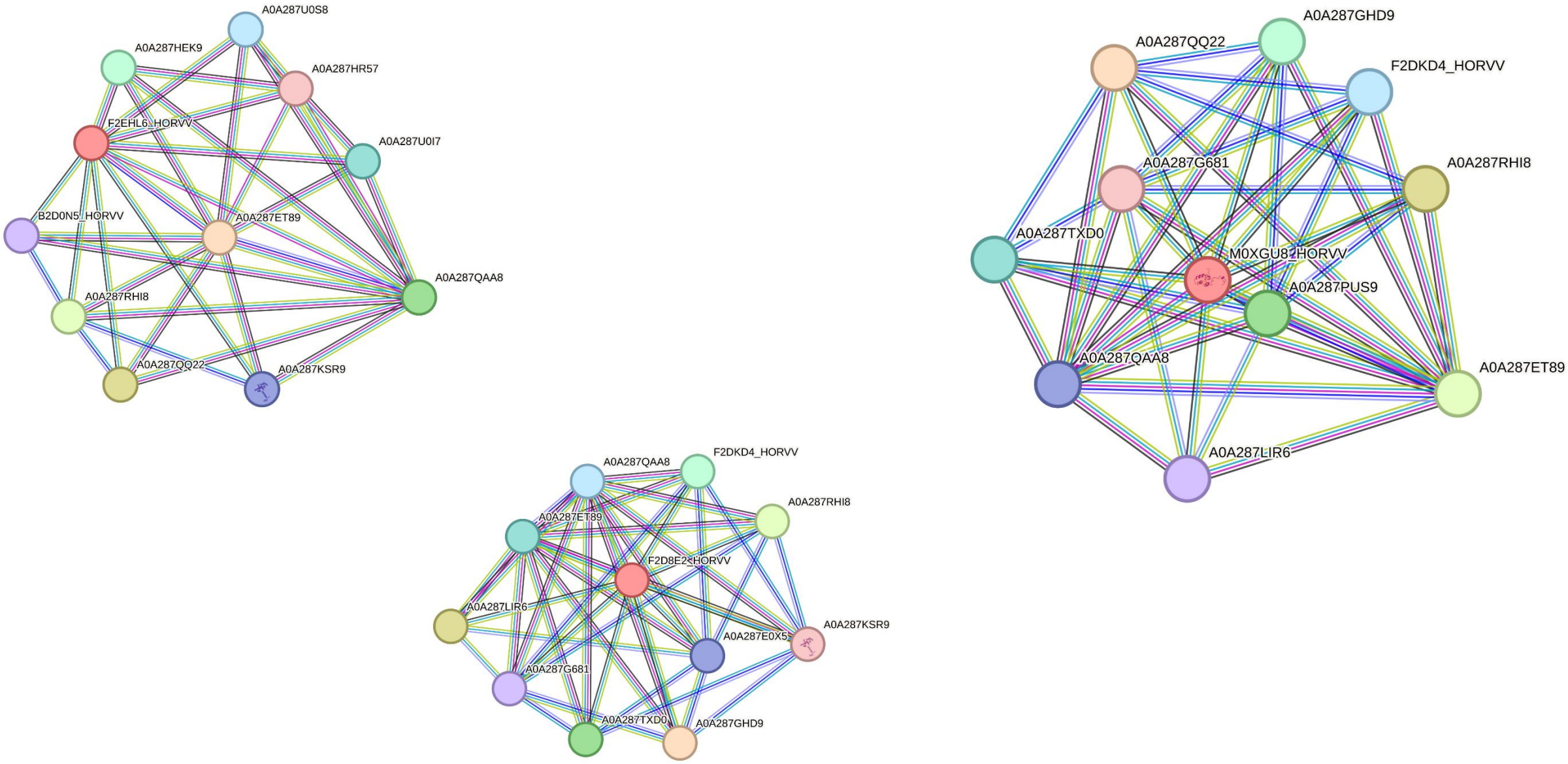


Fig. S118. Protein-protein interaction (PPI) network of HvSnRK clusters

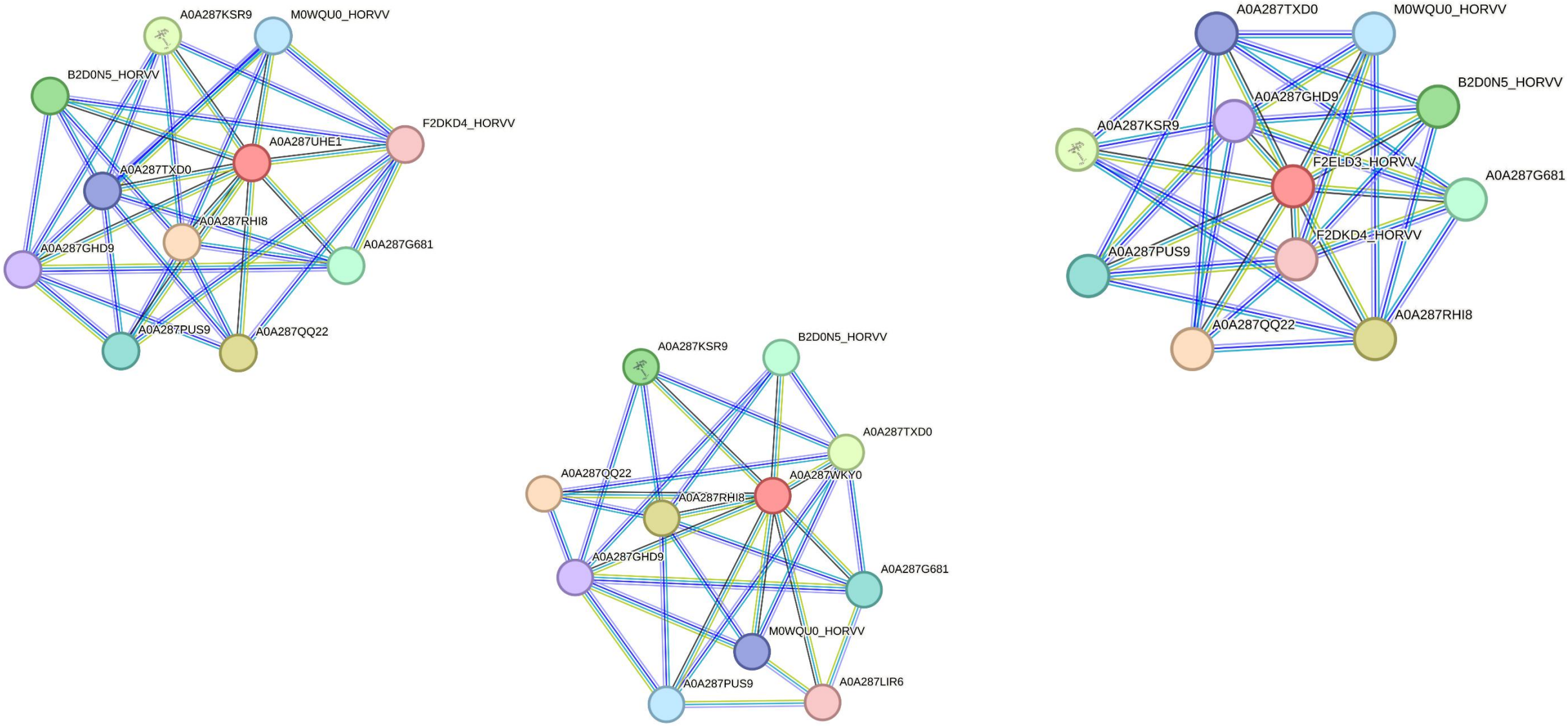


Fig. S119. Protein-protein interaction (PPI) network of HvSnRK clusters

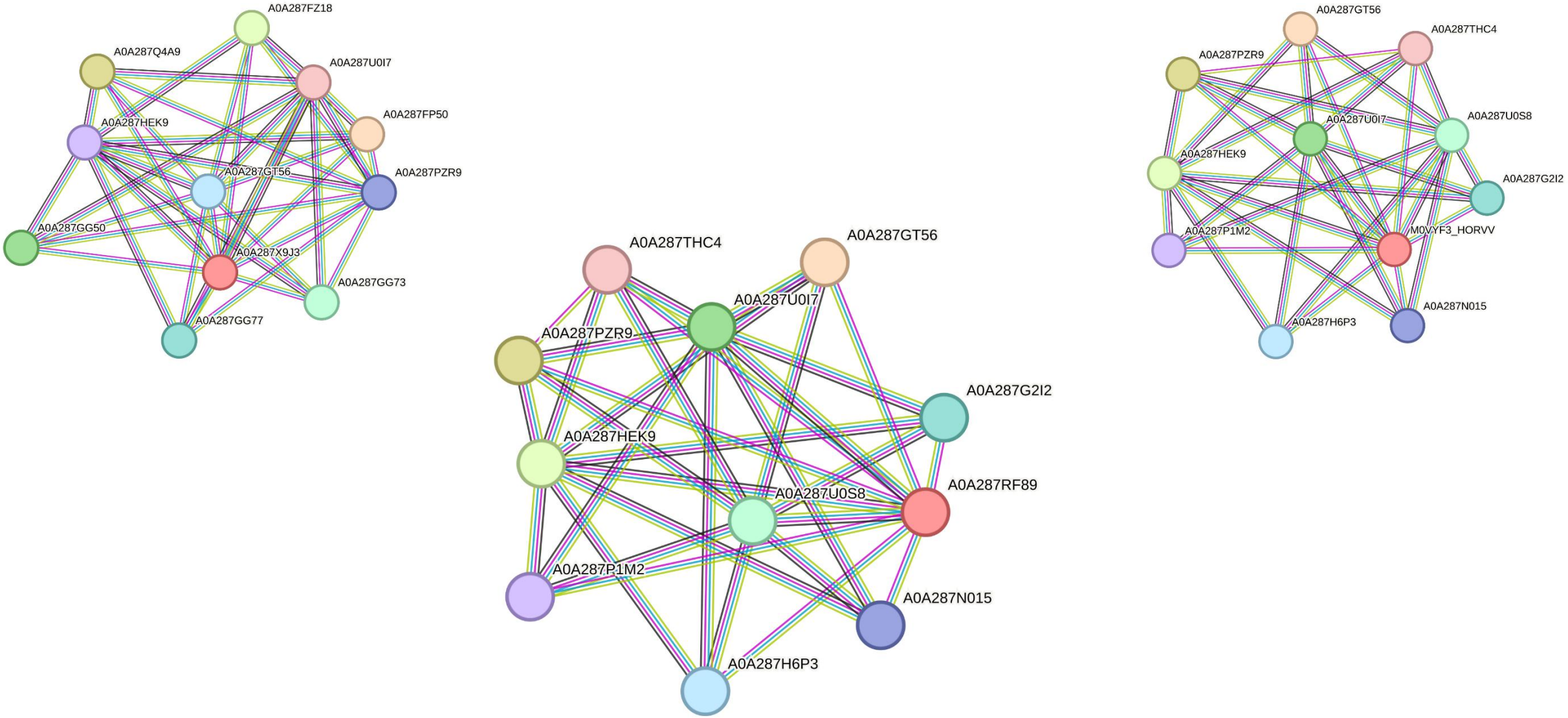
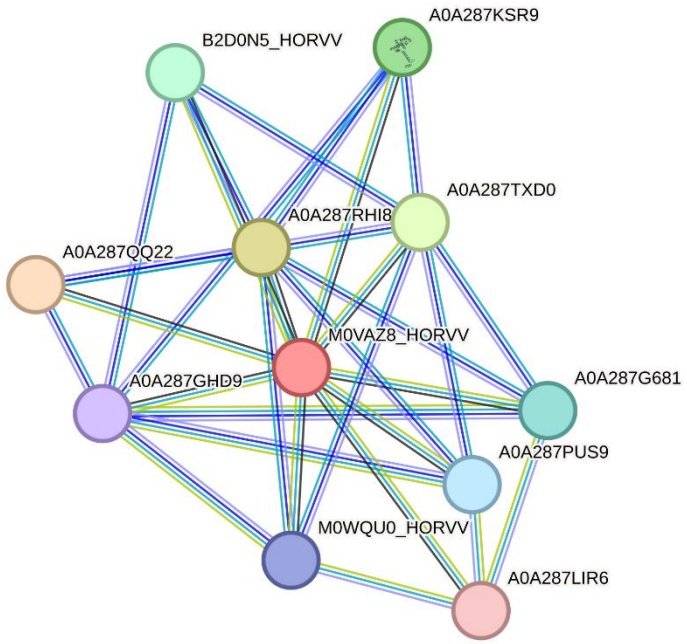
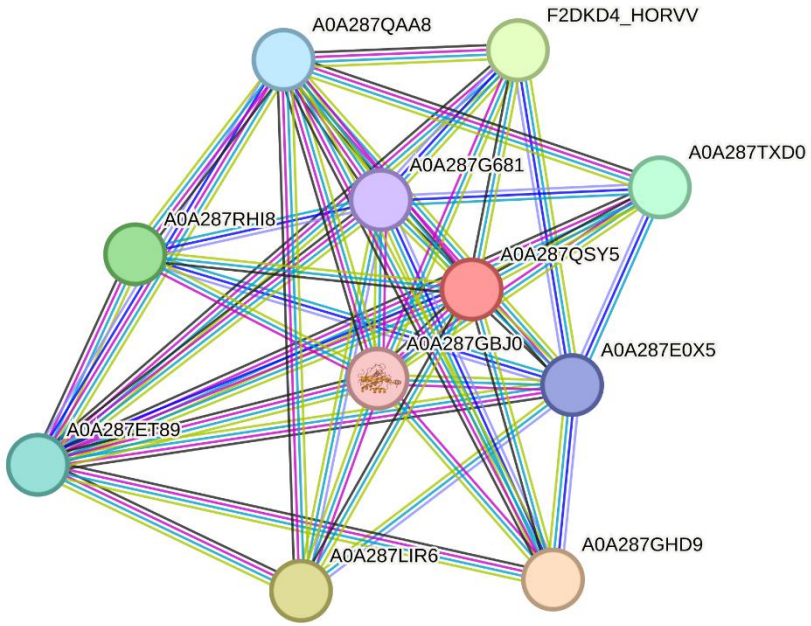


Fig. S120. Protein-protein interaction (PPI) network of HvSnRK clusters





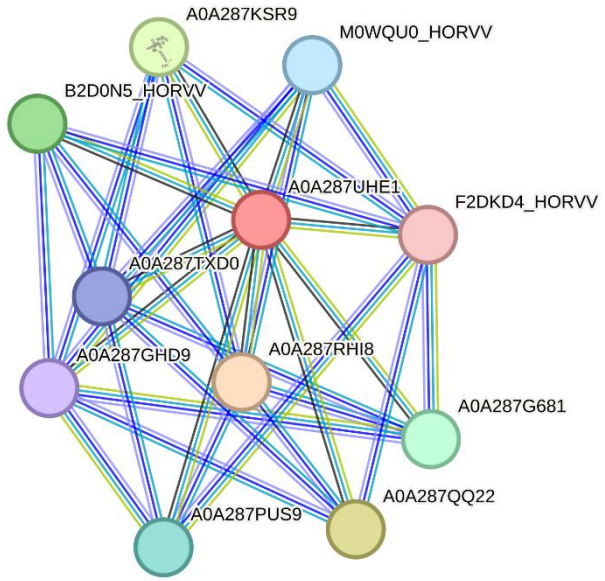
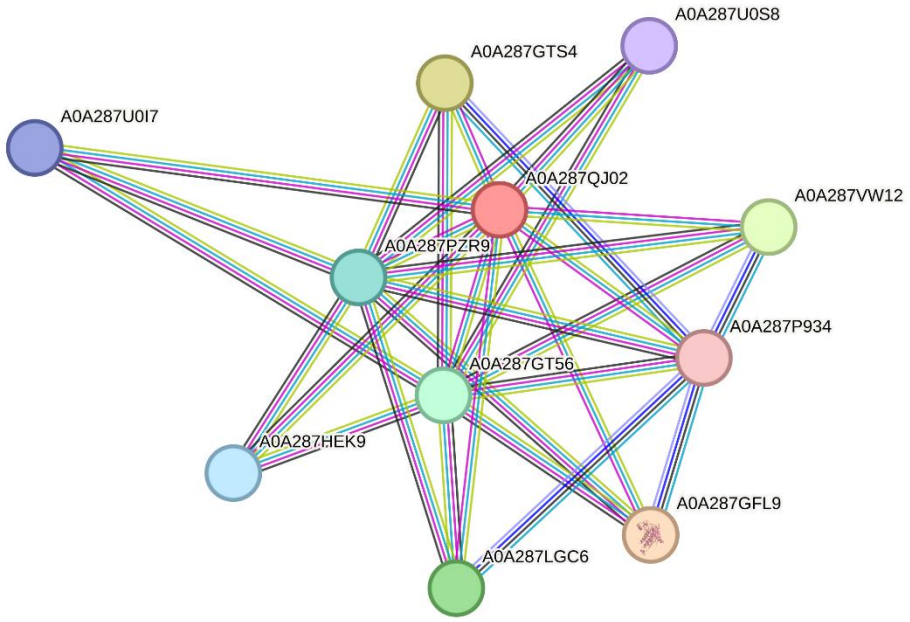
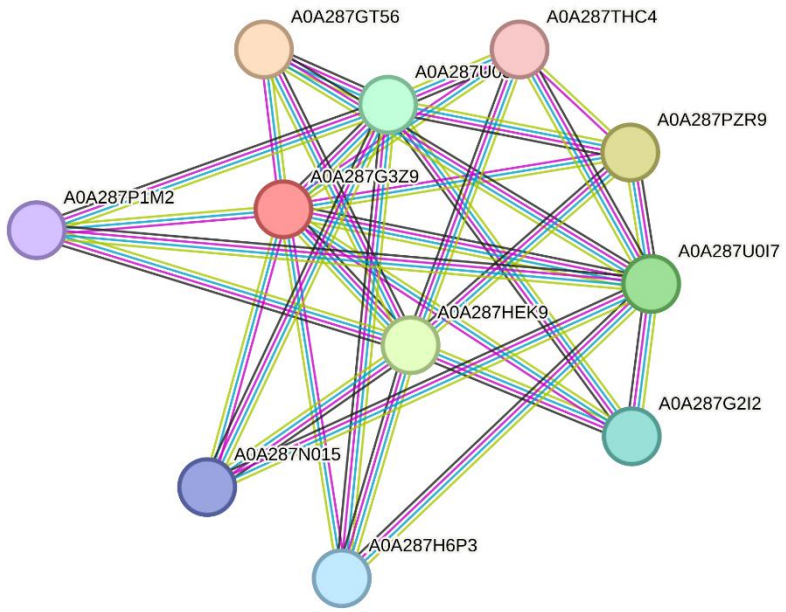


Fig. S121. Protein-protein interaction (PPI) network of HvSnRK clusters





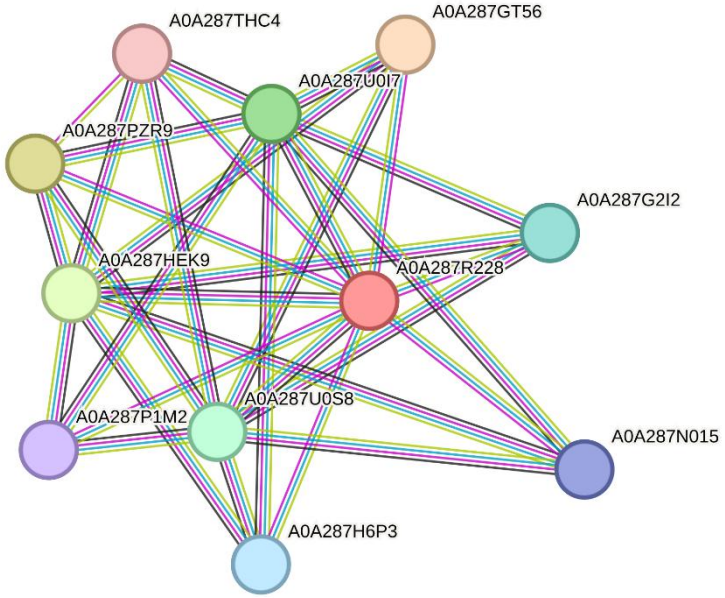
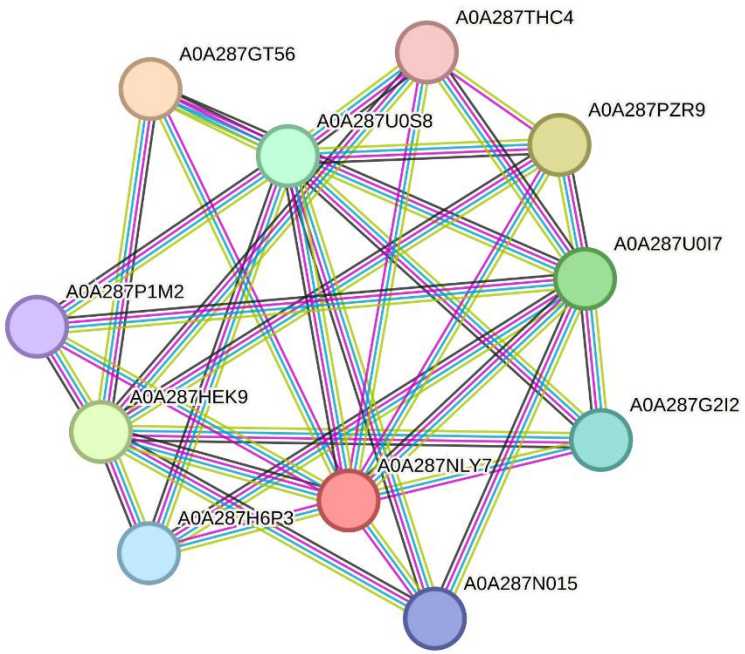
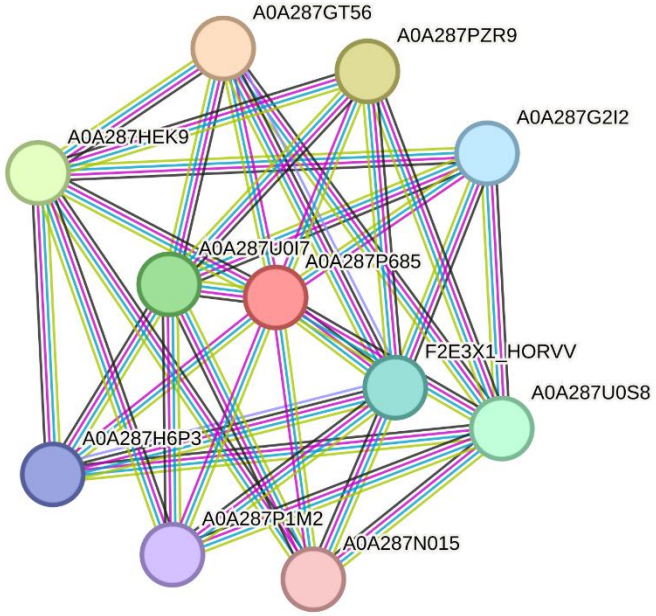


Fig. S122. Protein-protein interaction (PPI) network of HvSnRK clusters





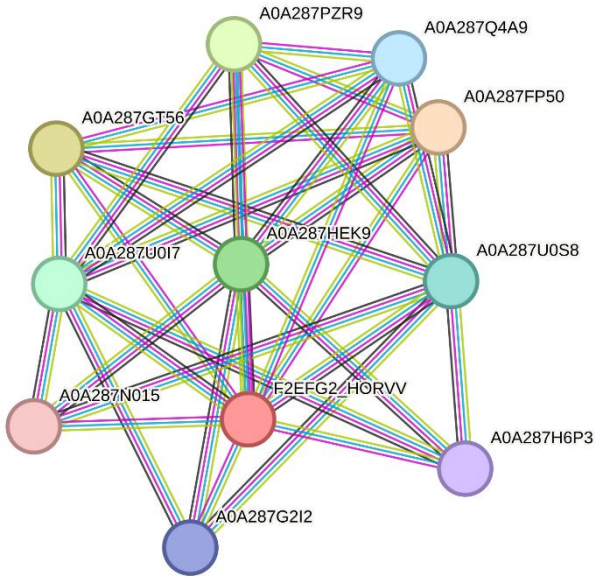


Fig. S123. Protein-protein interaction (PPI) network of HvSnRK clusters

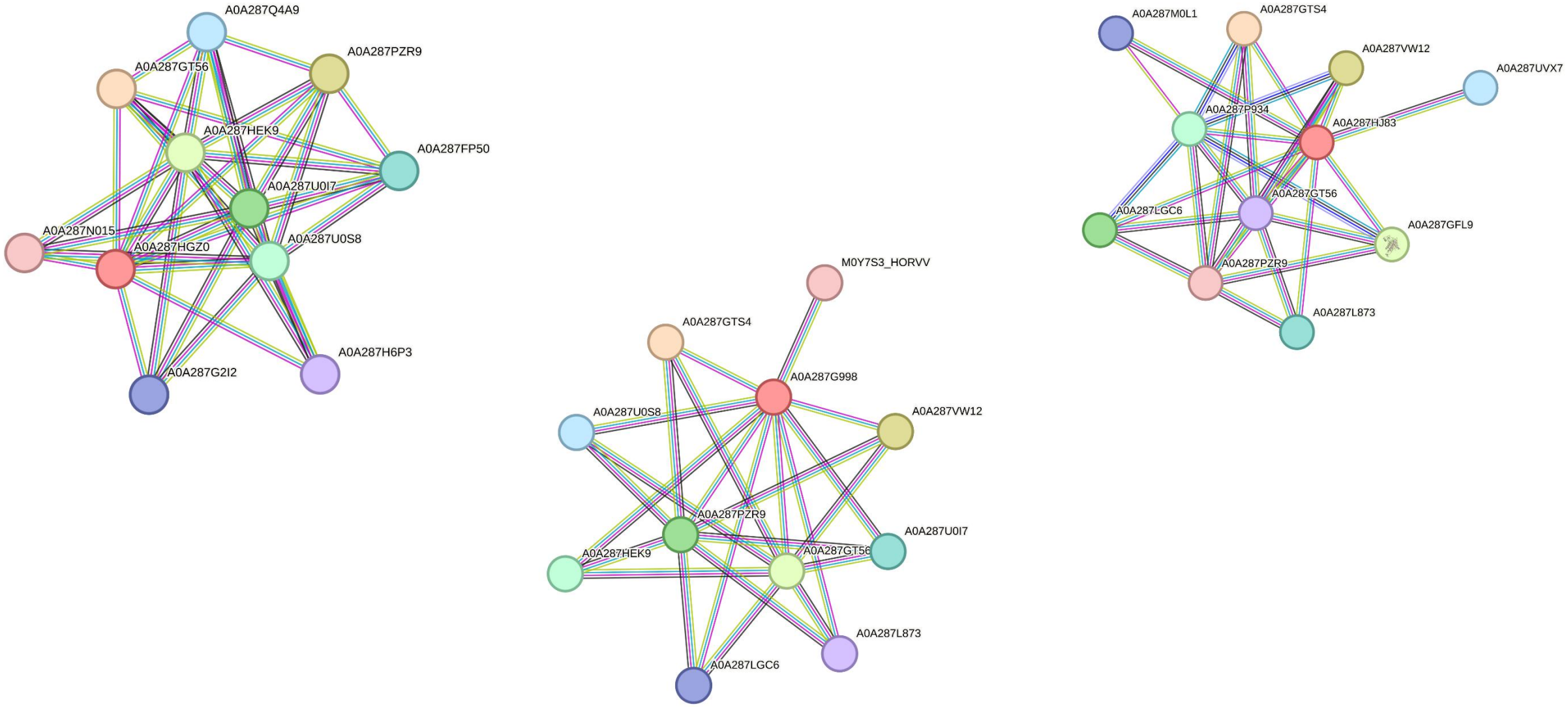


Fig. S124. Protein-protein interaction (PPI) network of HvSnRK clusters

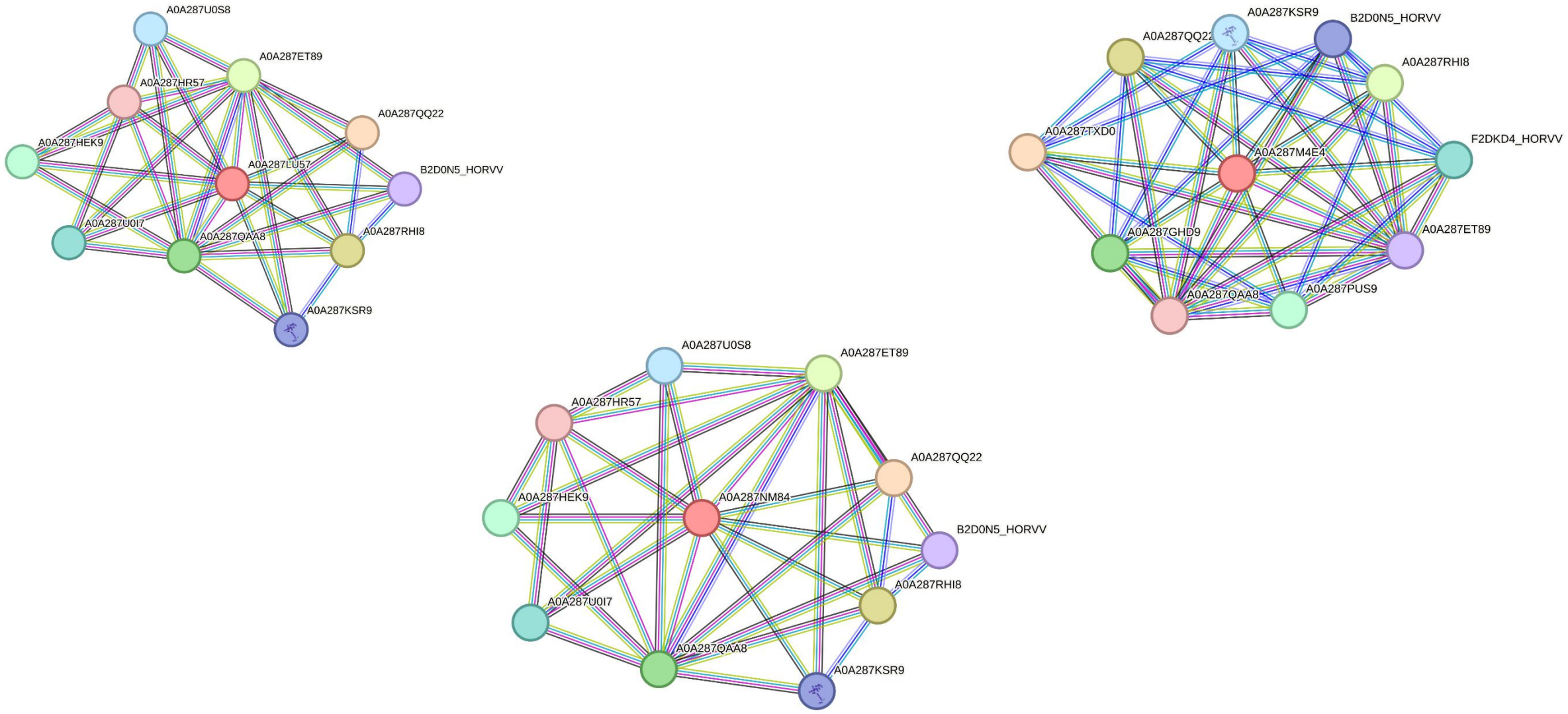


Fig. S125. Protein-protein interaction (PPI) network of HvSnRK clusters

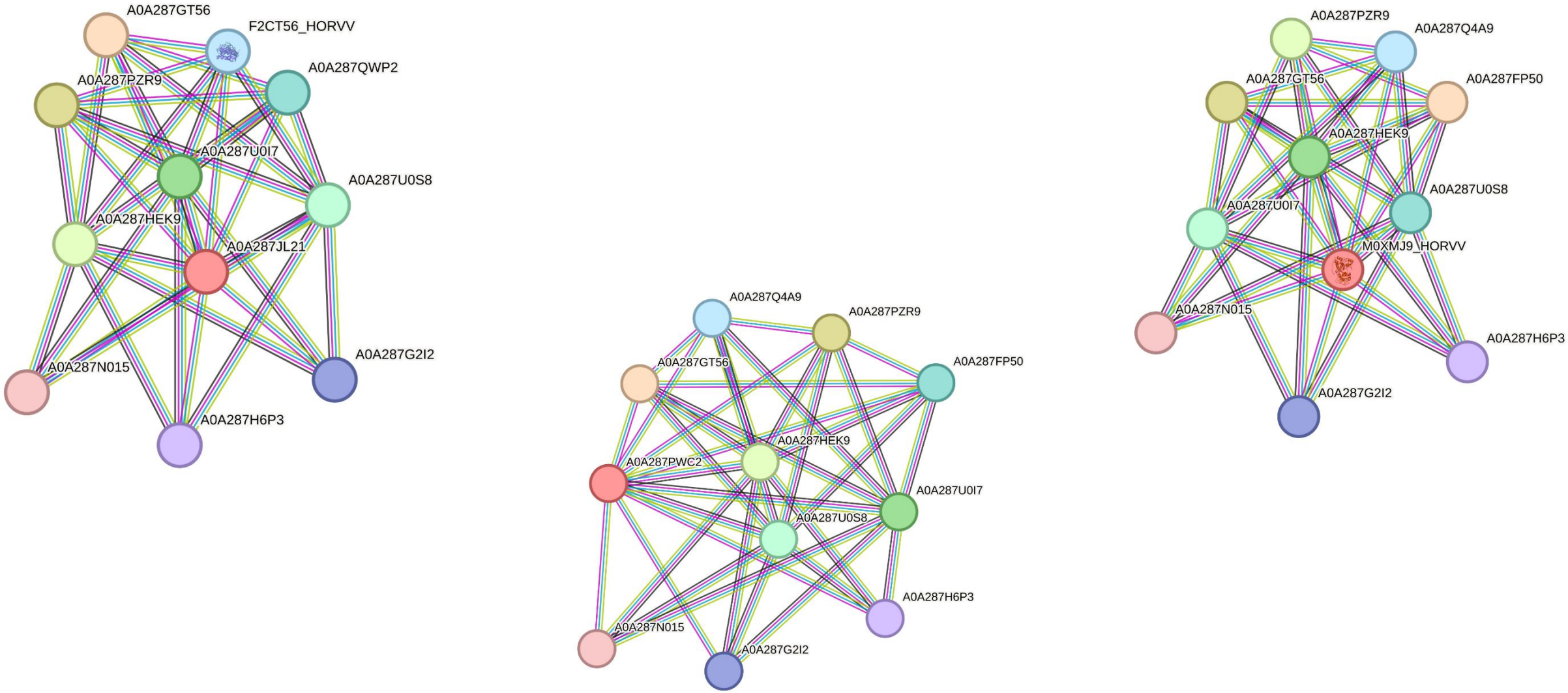


Fig. S126. Protein-protein interaction (PPI) network of HvSnRK clusters

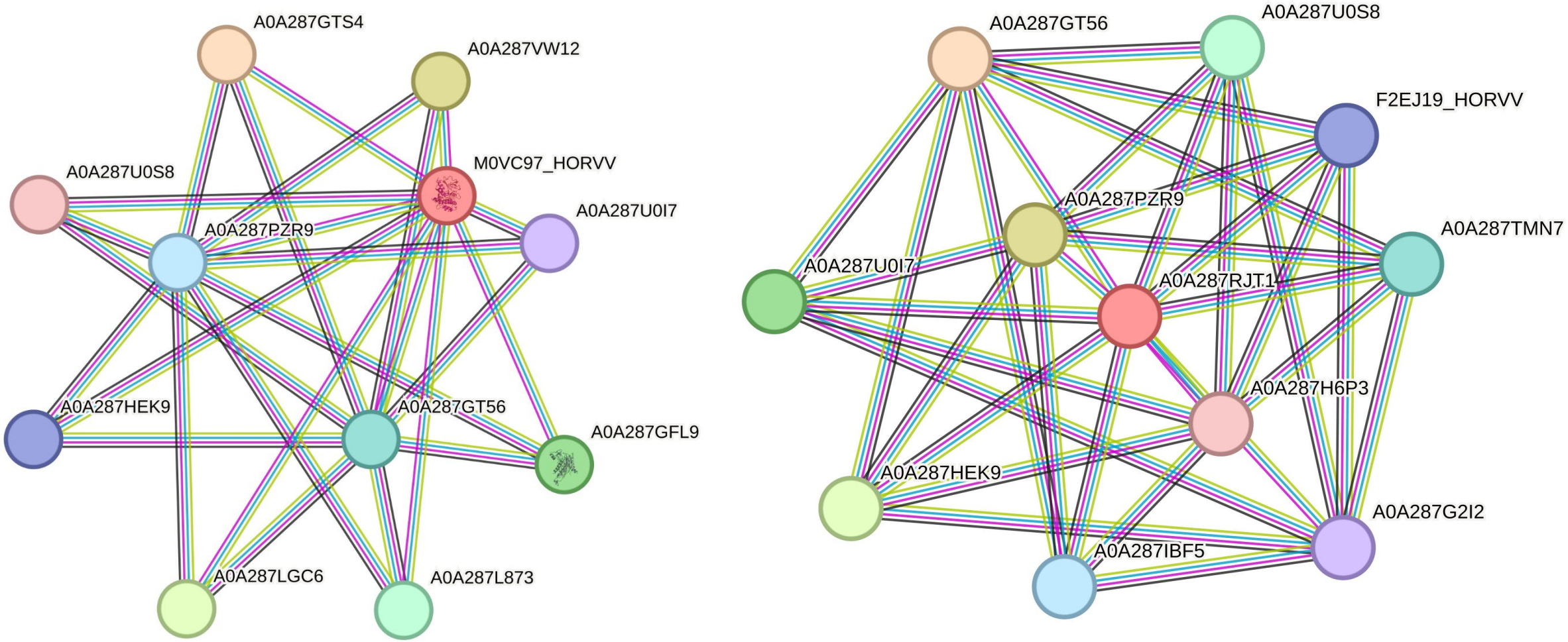
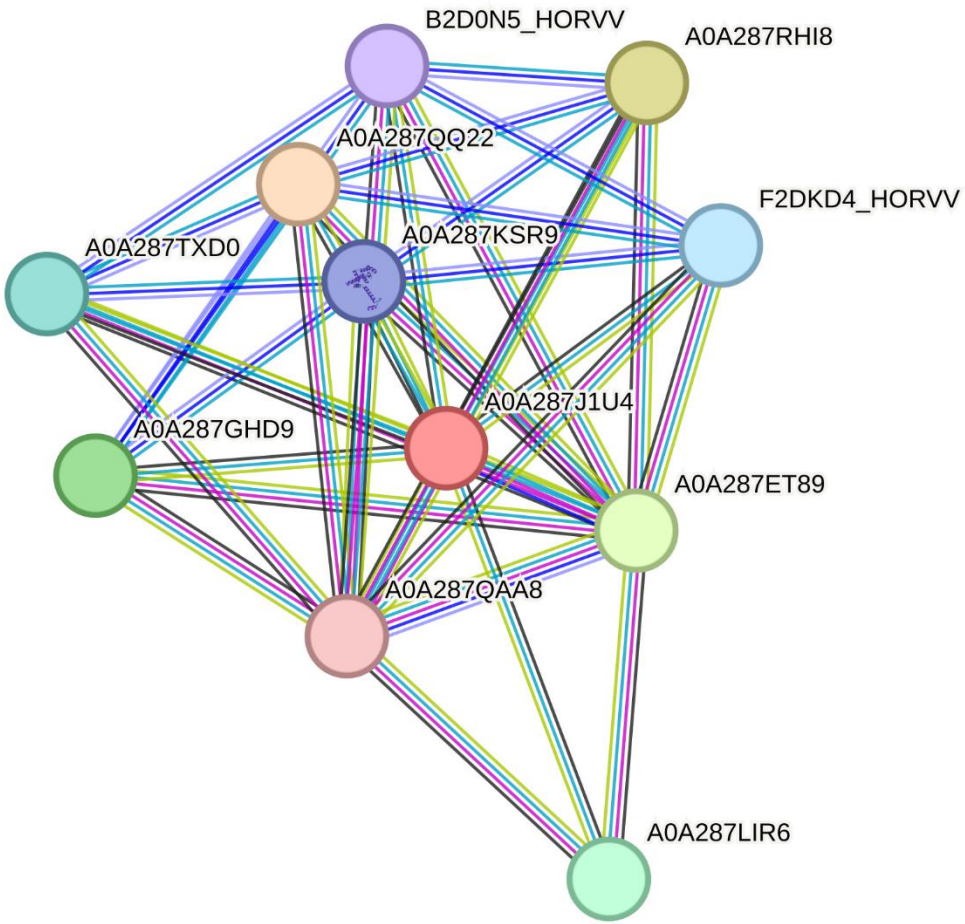


Fig. S127. Protein-protein interaction (PPI) network of HvSnRK clusters



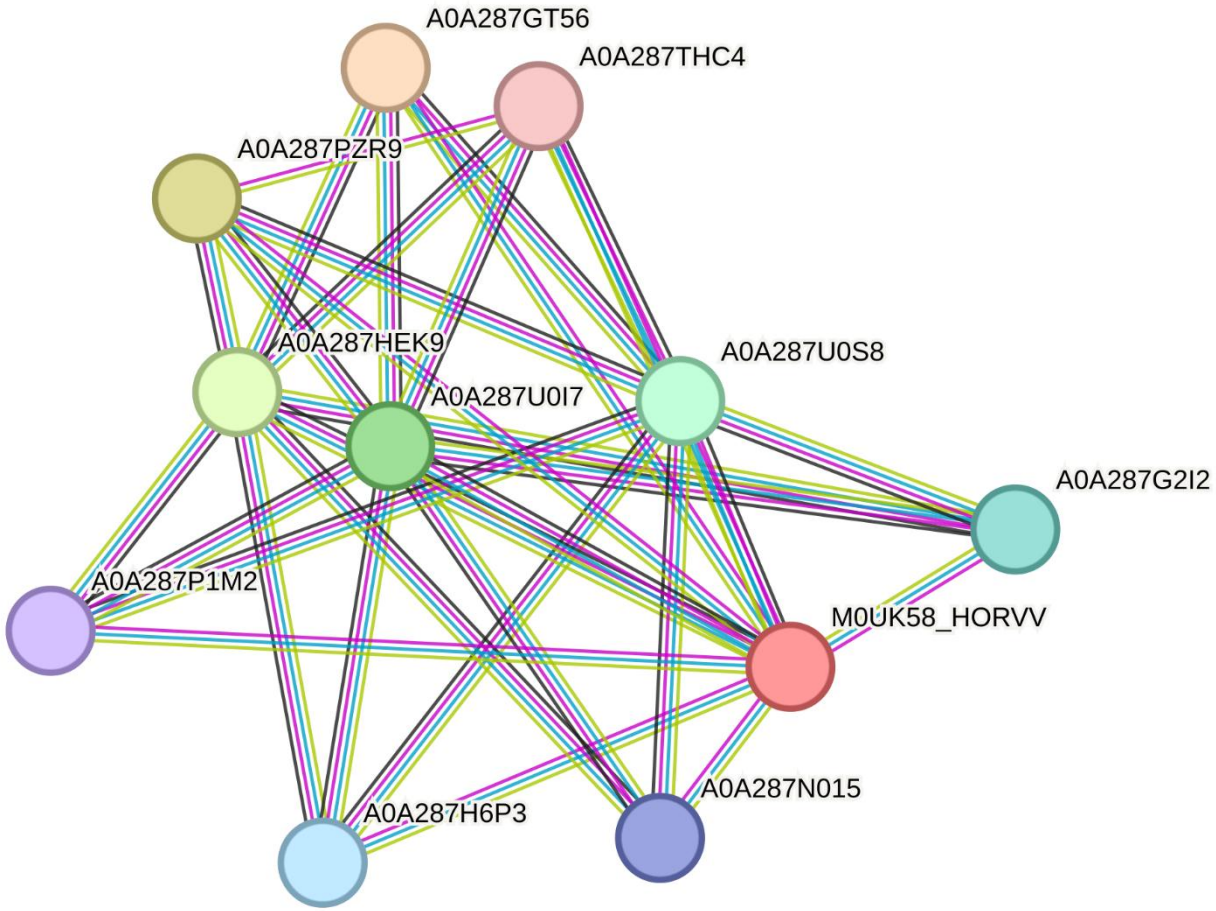


Fig. S128. Protein-protein interaction (PPI) network of HvSnRK clusters

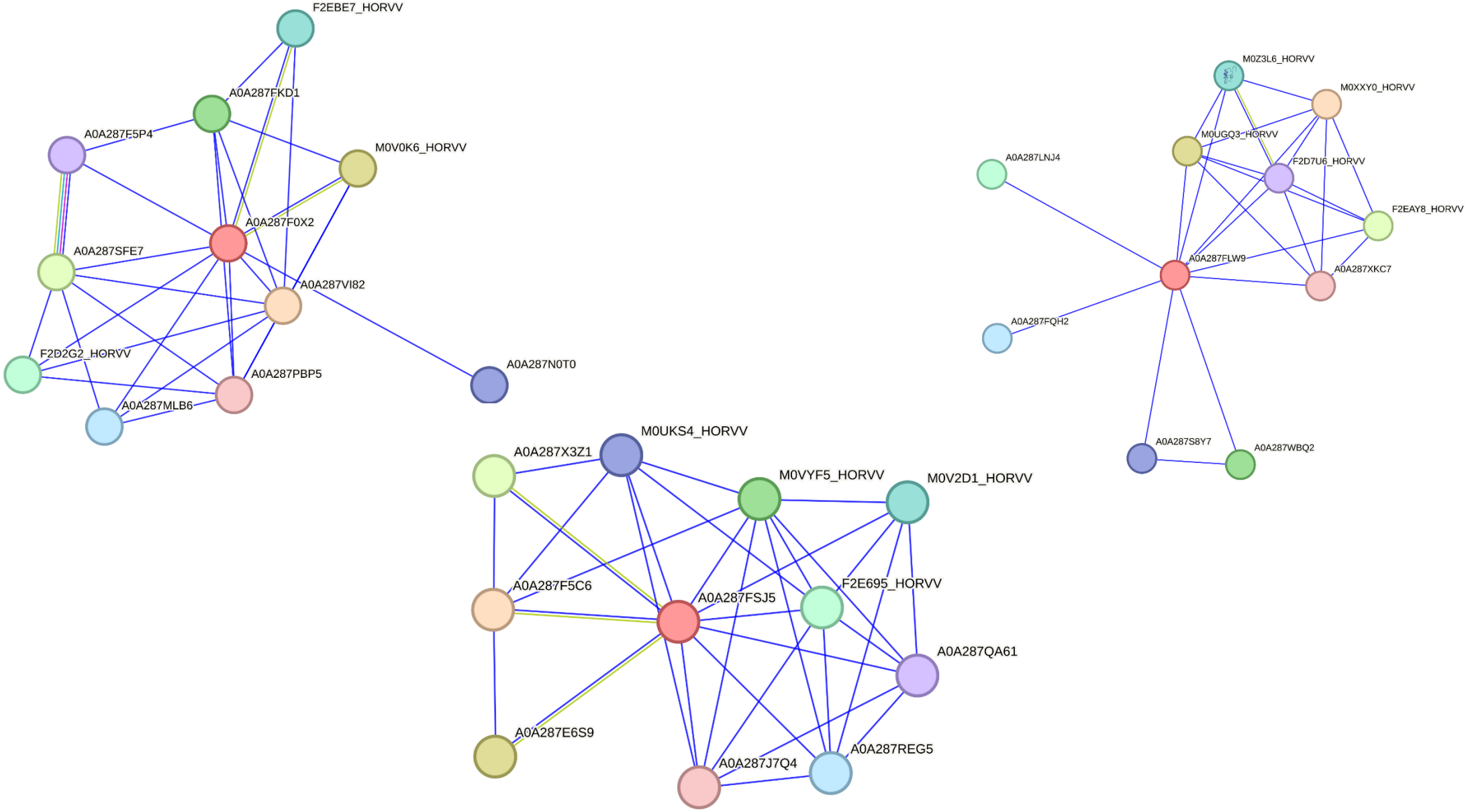
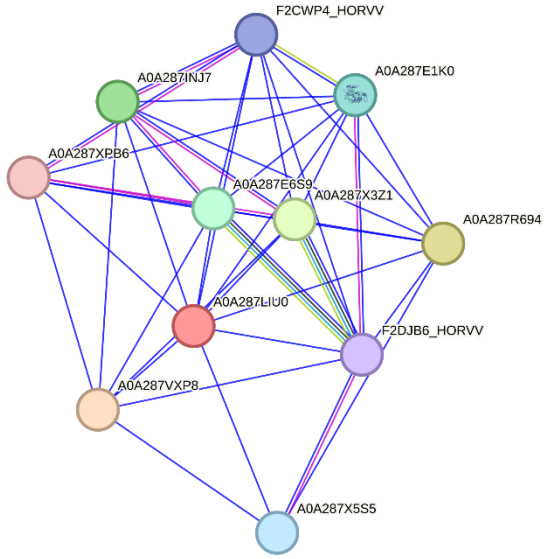
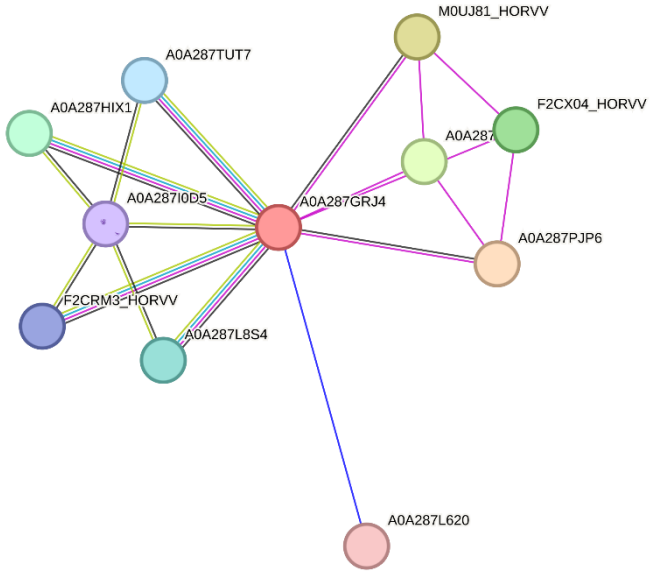


Fig. S129. Protein-protein interaction (PPI) network of HvLEAs clusters





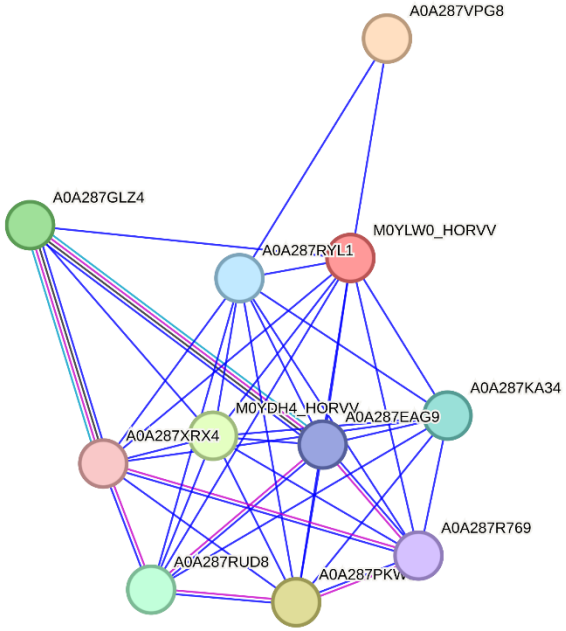
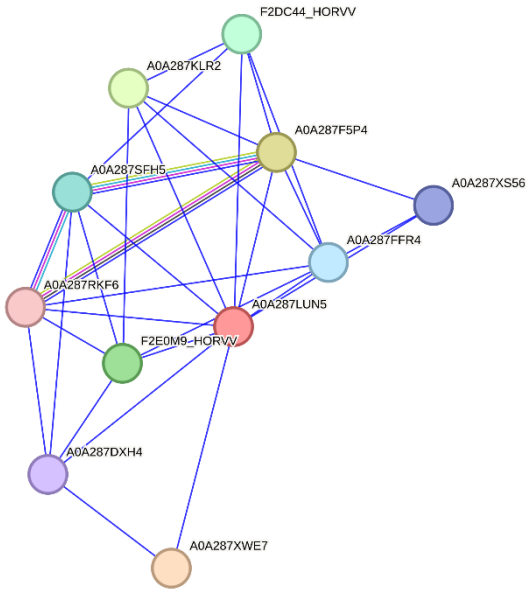
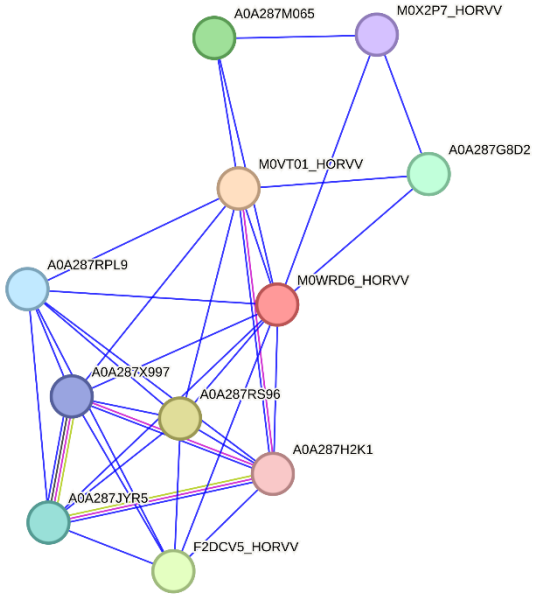


Fig. S130. Protein-protein interaction (PPI) network of HvLEAs clusters





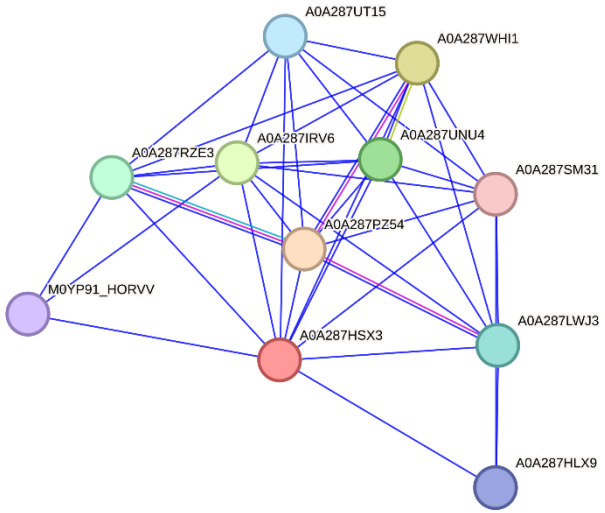


Fig. S131. Protein-protein interaction (PPI) network of HvLEAs clusters

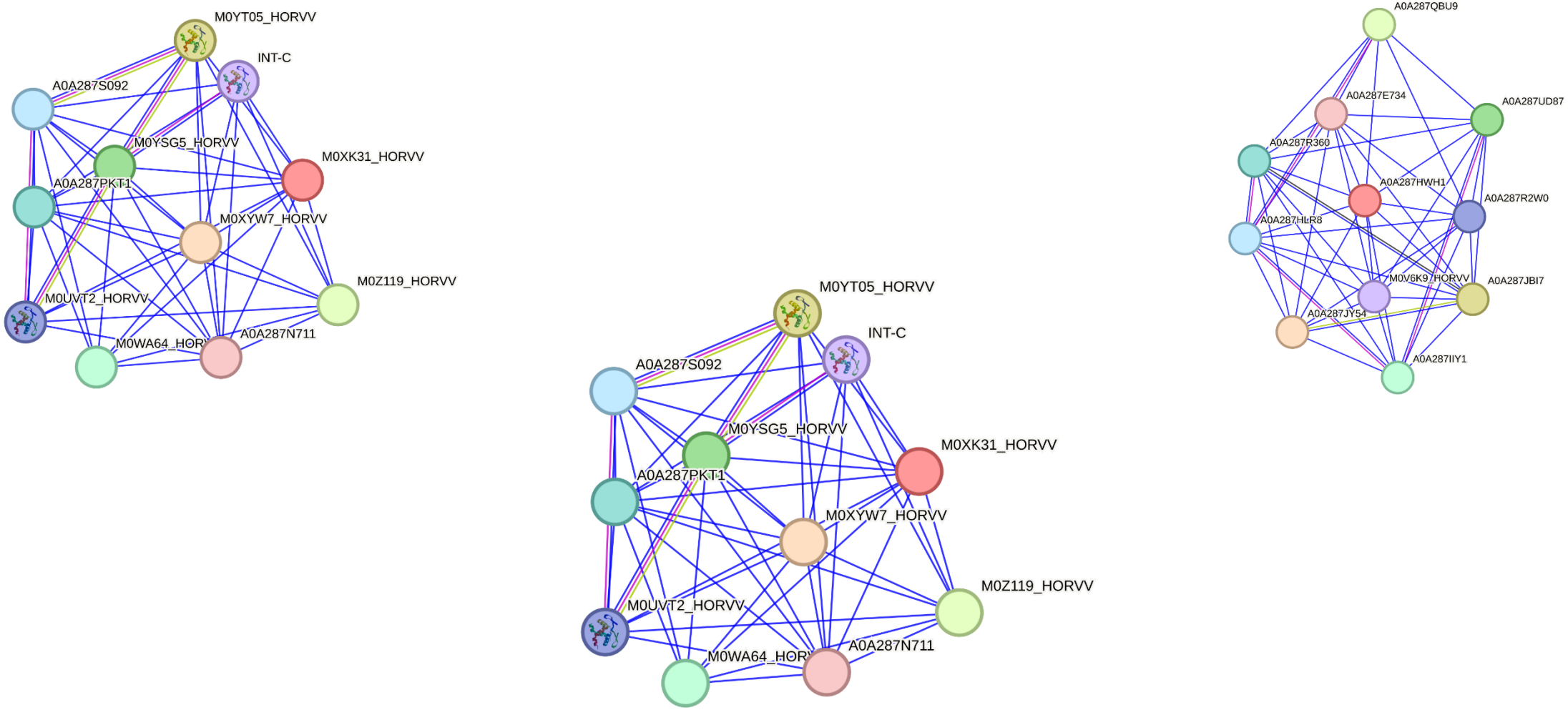


Fig. S132. Protein-protein interaction (PPI) network of HvLEAs clusters

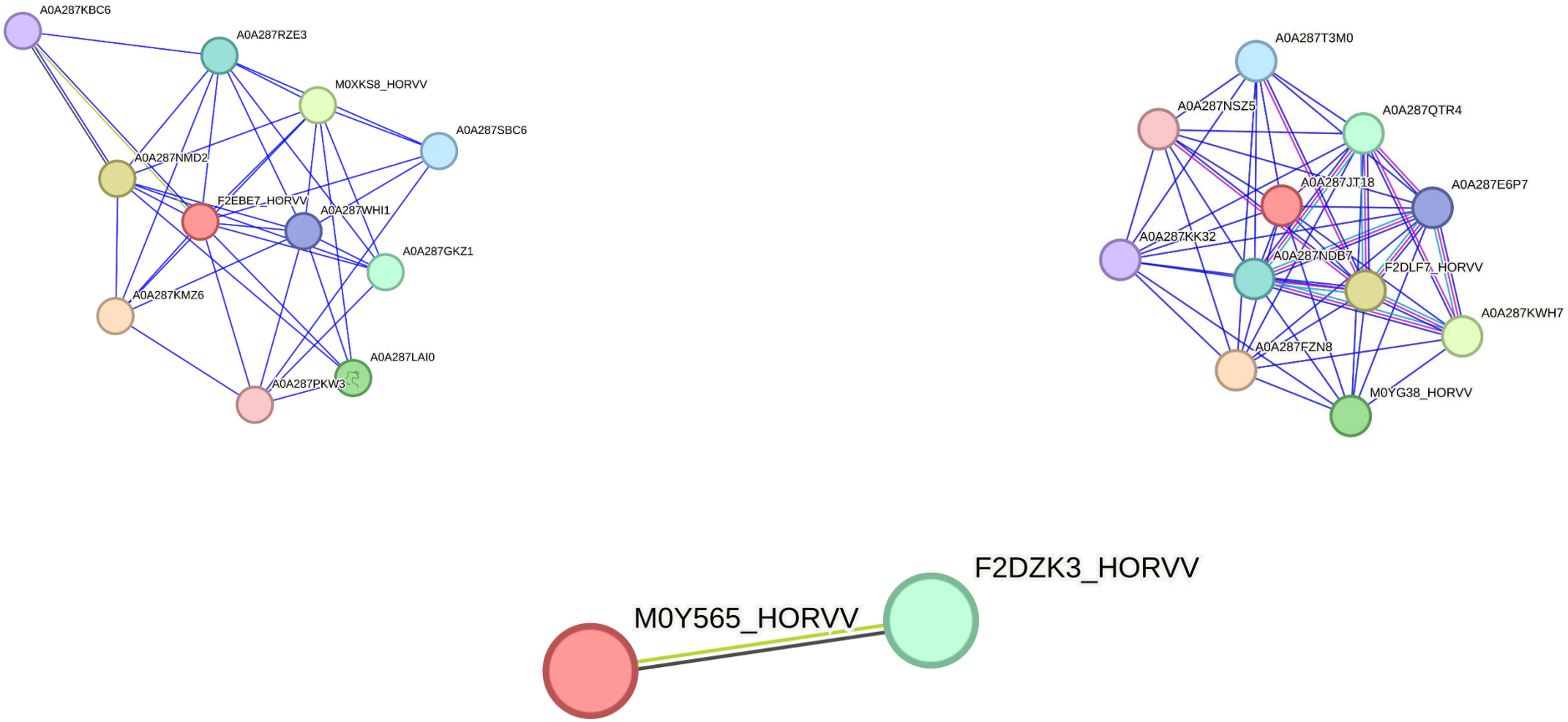


Fig. S133. Protein-protein interaction (PPI) network of HvLEAs clusters

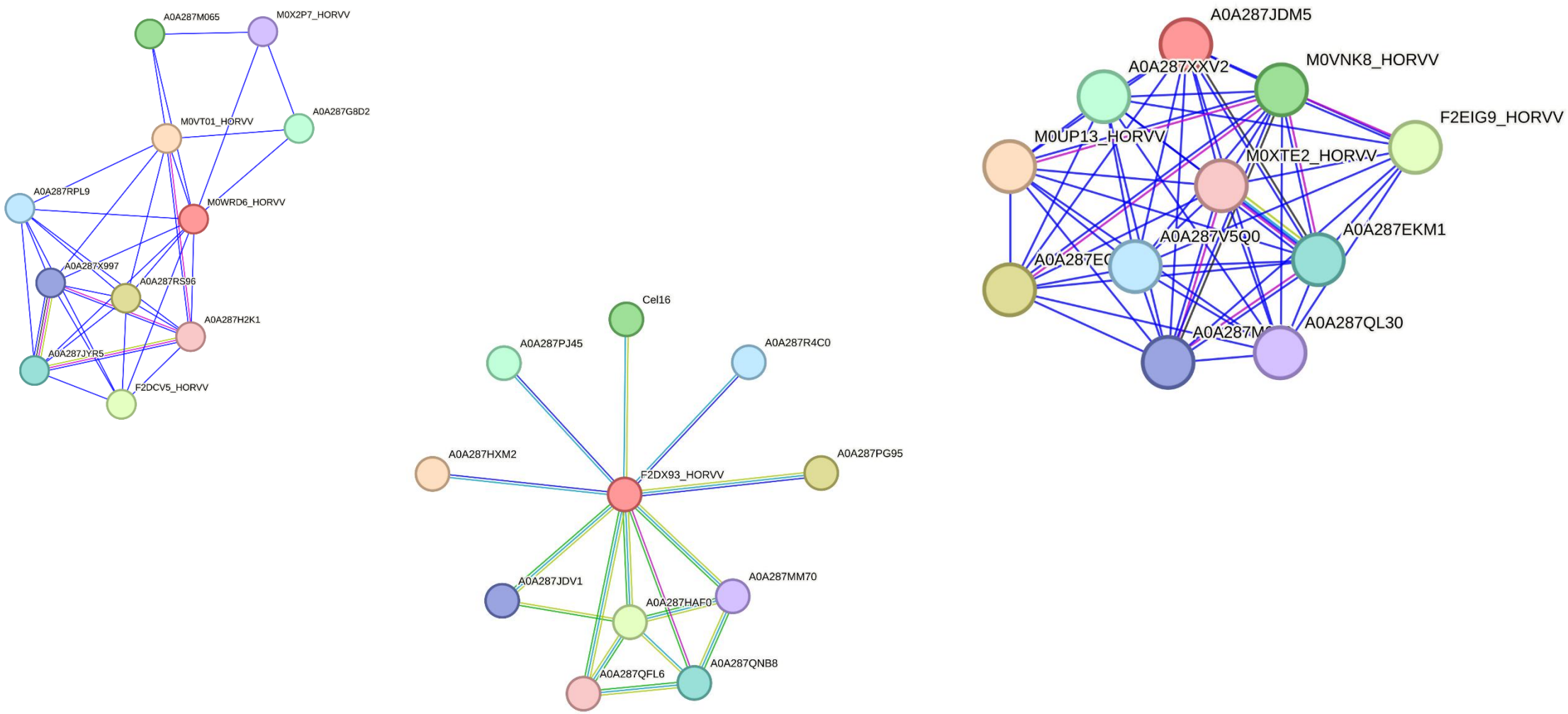


Fig. S134. Protein-protein interaction (PPI) network of HvLEAs clusters

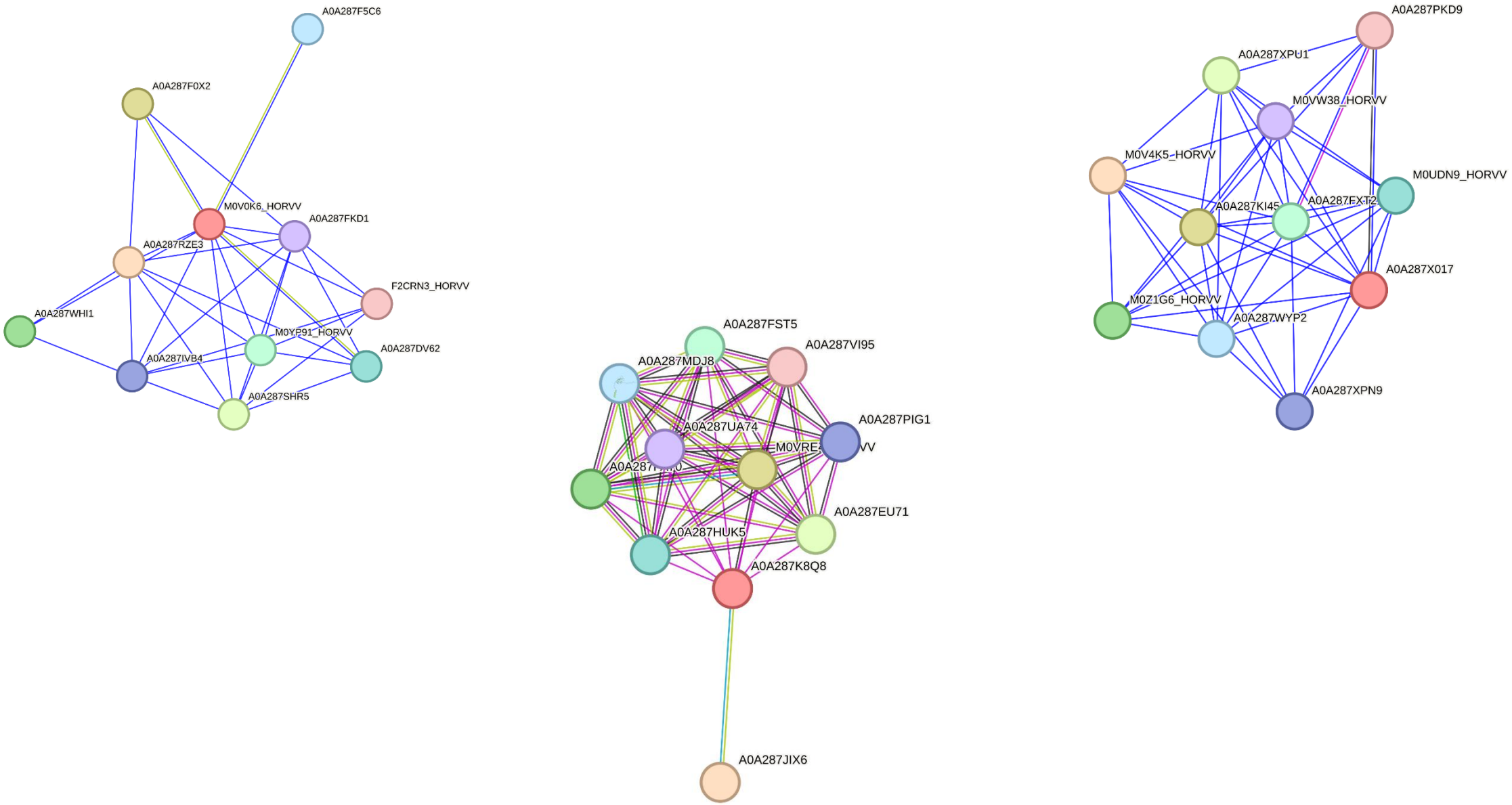
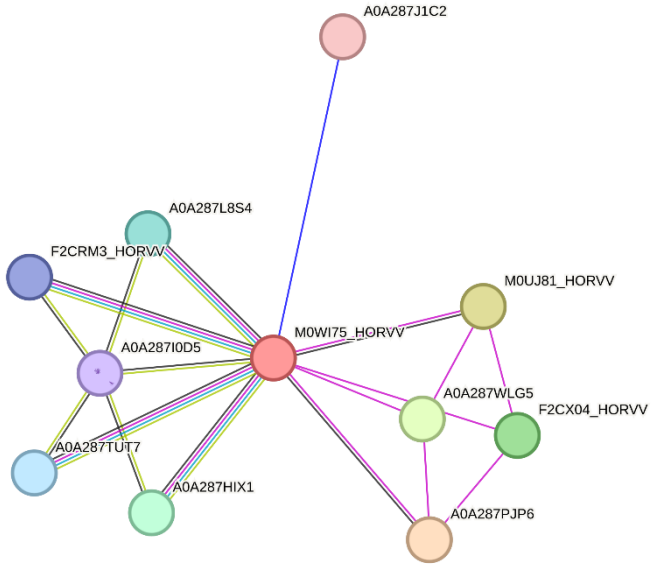
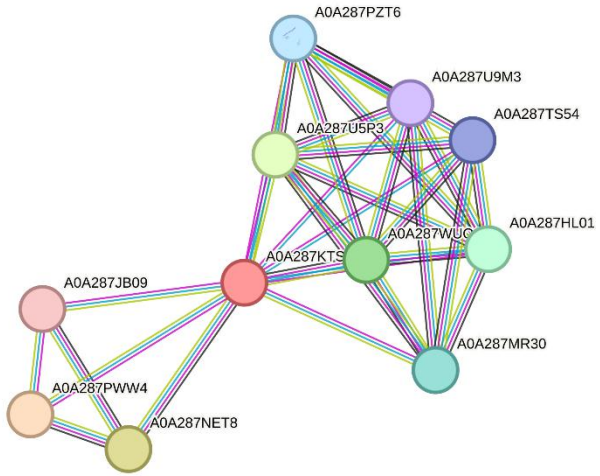


Fig. S135. Protein-protein interaction (PPI) network of HvLEAs clusters





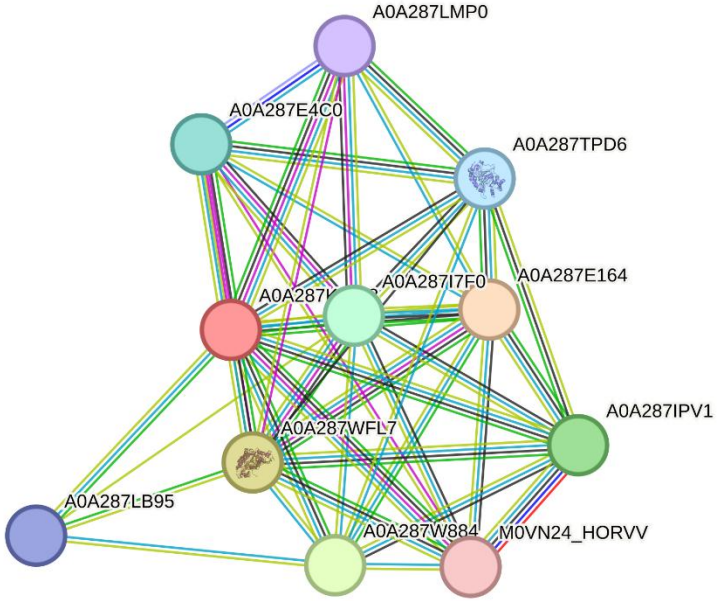


Fig. S136. Protein-protein interaction (PPI) network of HvLEAs clusters

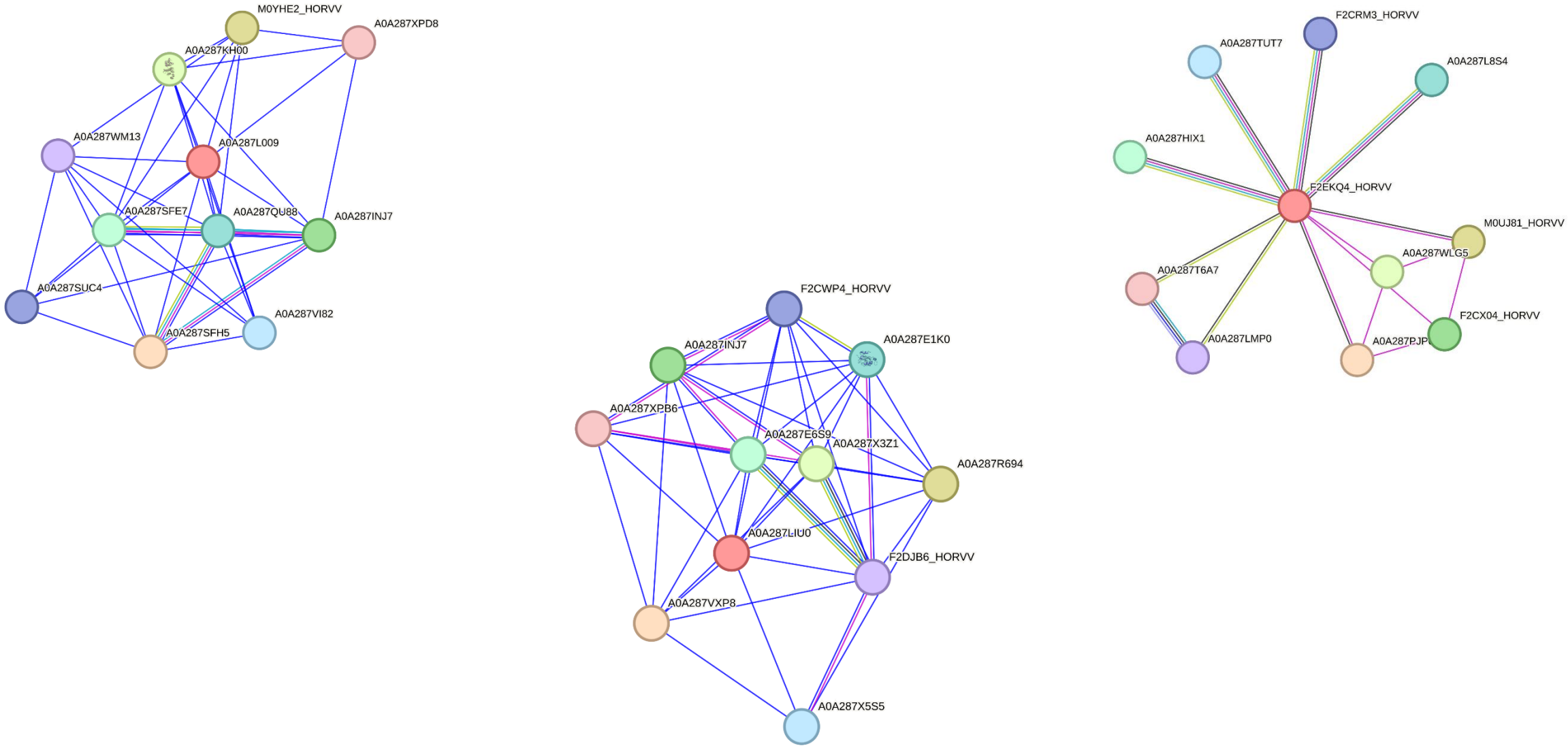
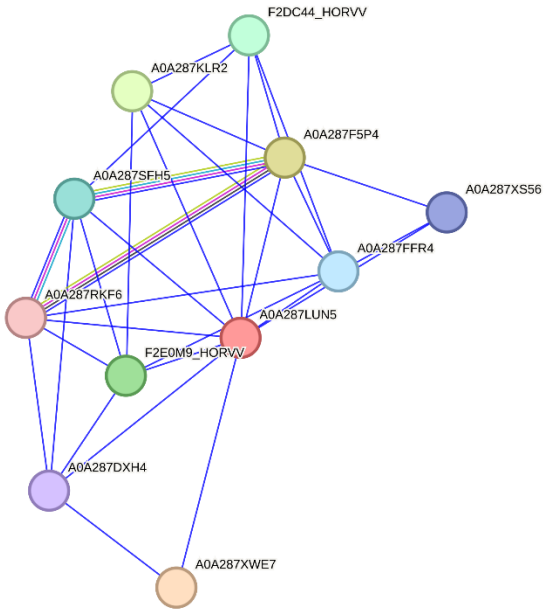
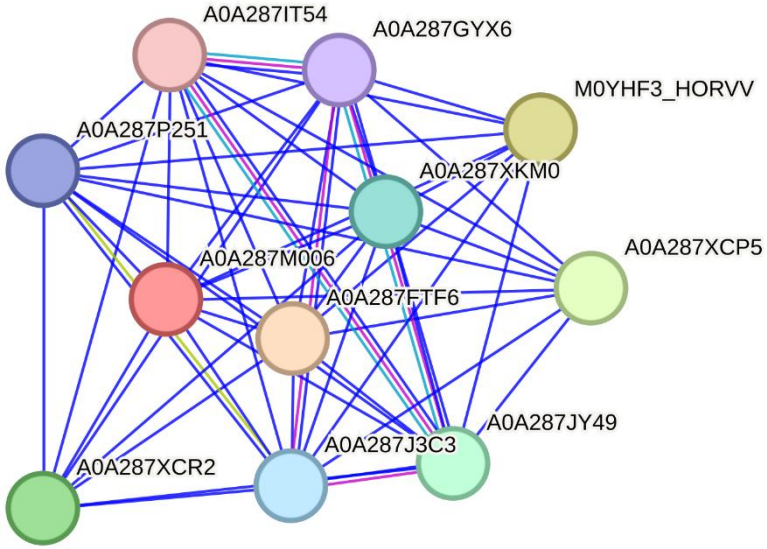


Fig. S137. Protein-protein interaction (PPI) network of HvLEAs clusters





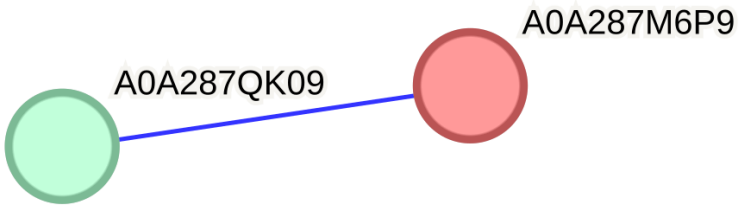


Fig. S138. Protein-protein interaction (PPI) network of HvLEAs clusters

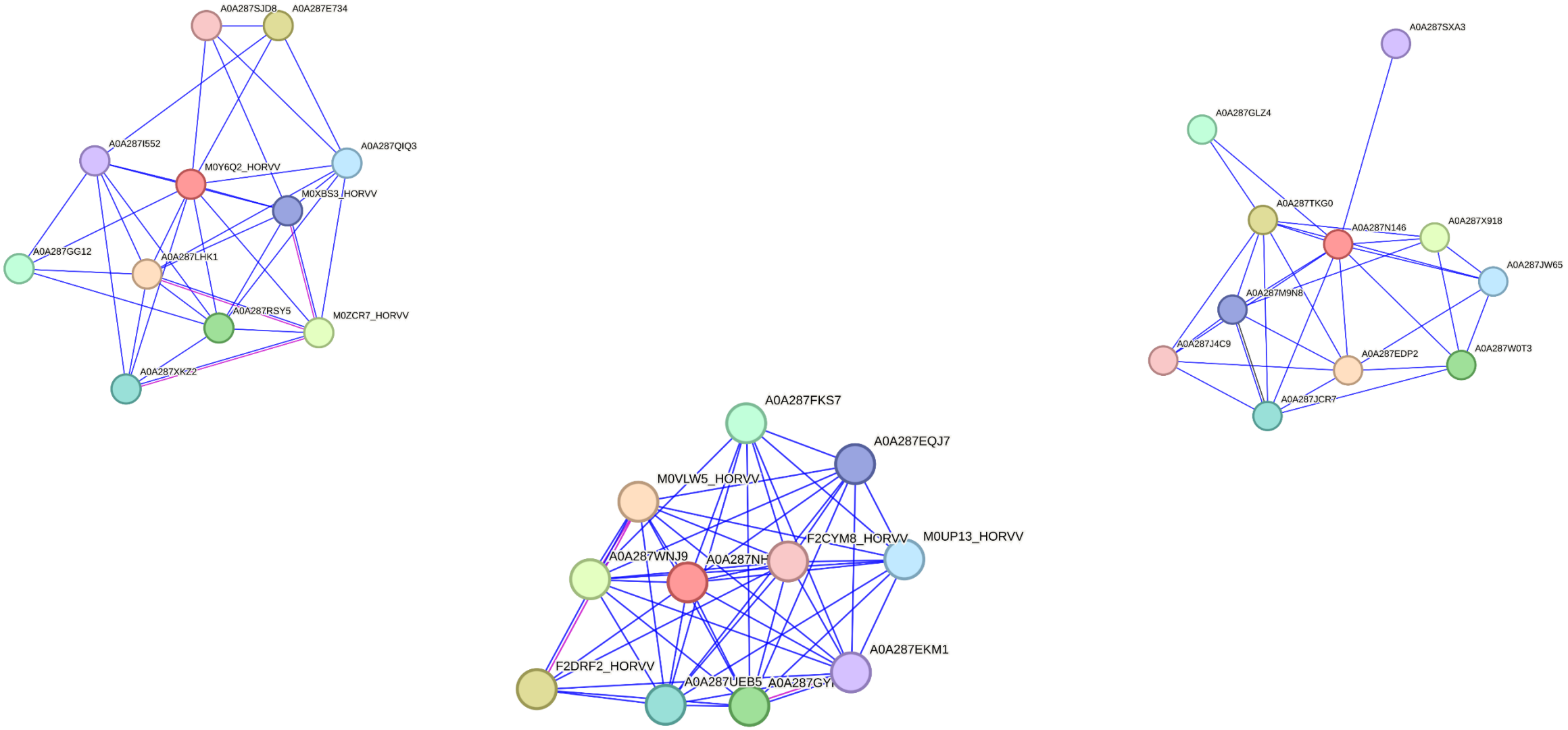
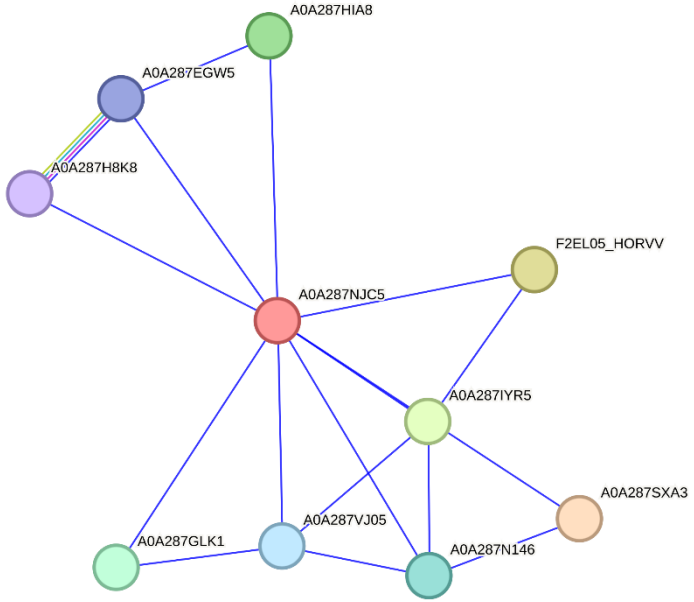
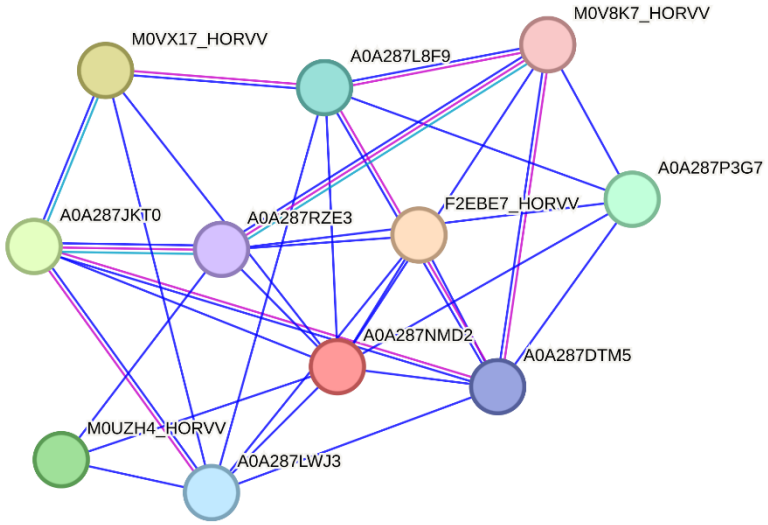


Fig. S139. Protein-protein interaction (PPI) network of HvLEAs clusters





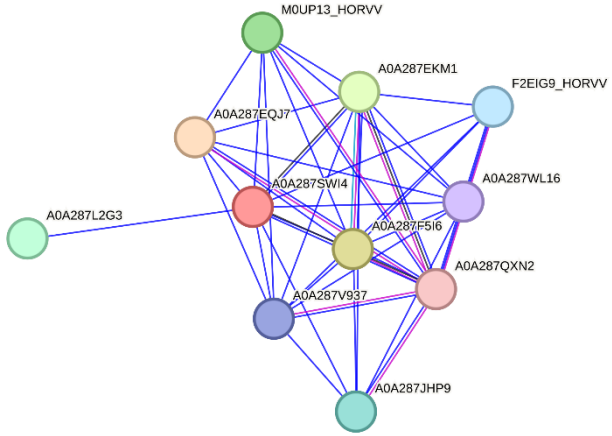


Fig. S140. Protein-protein interaction (PPI) network of HvLEAs clusters

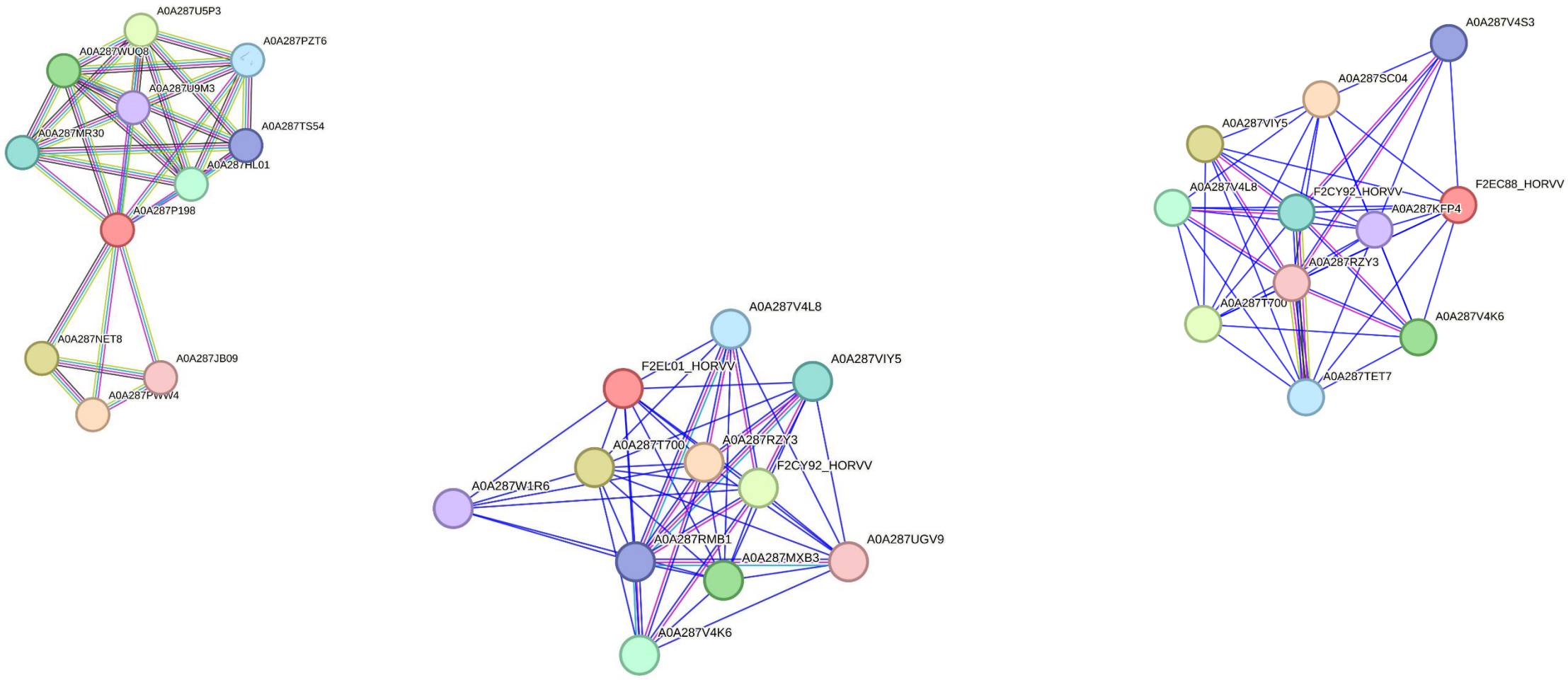


Fig. S141. Protein-protein interaction (PPI) network of HvLEAs clusters

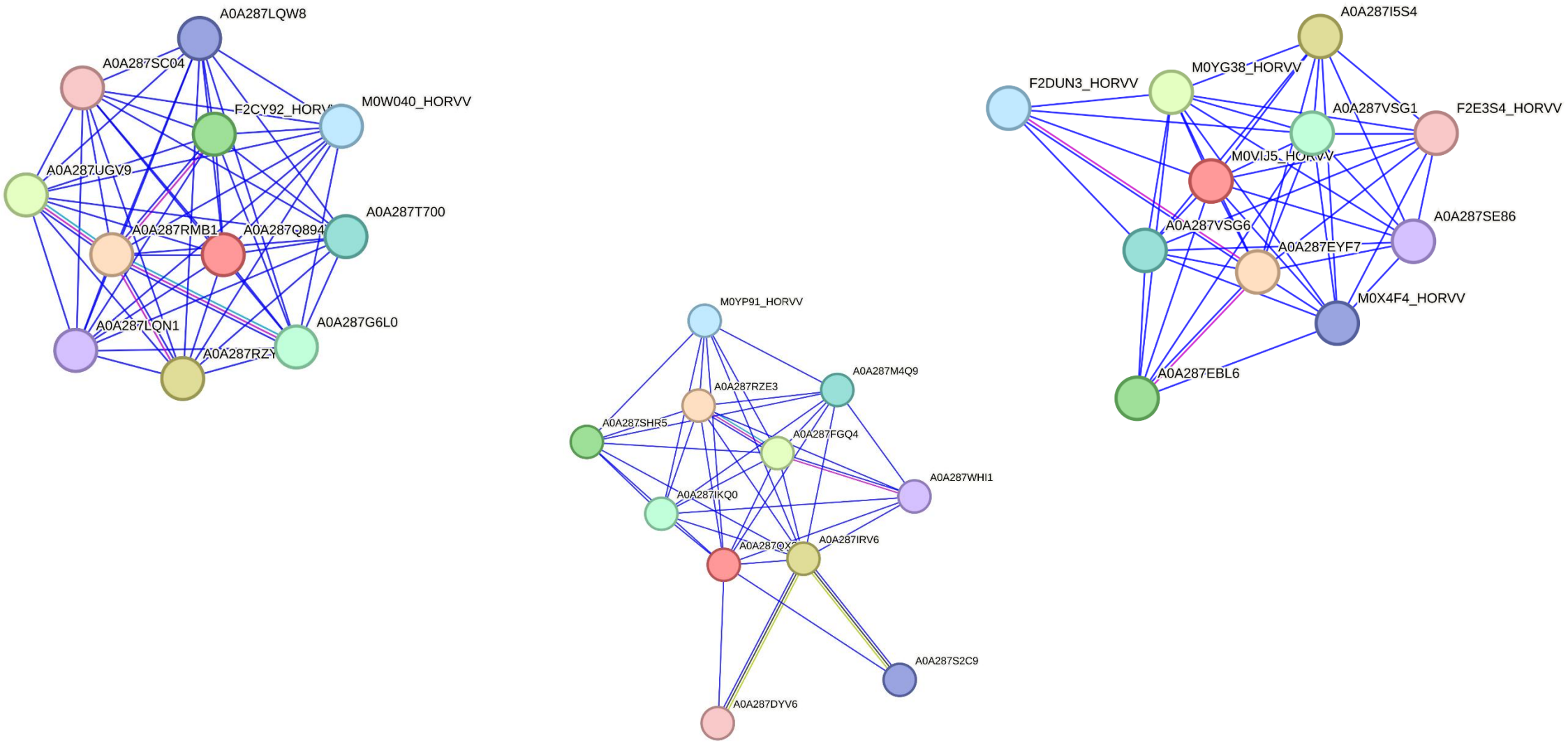


Fig. S142. Protein-protein interaction (PPI) network of HvLEAs clusters

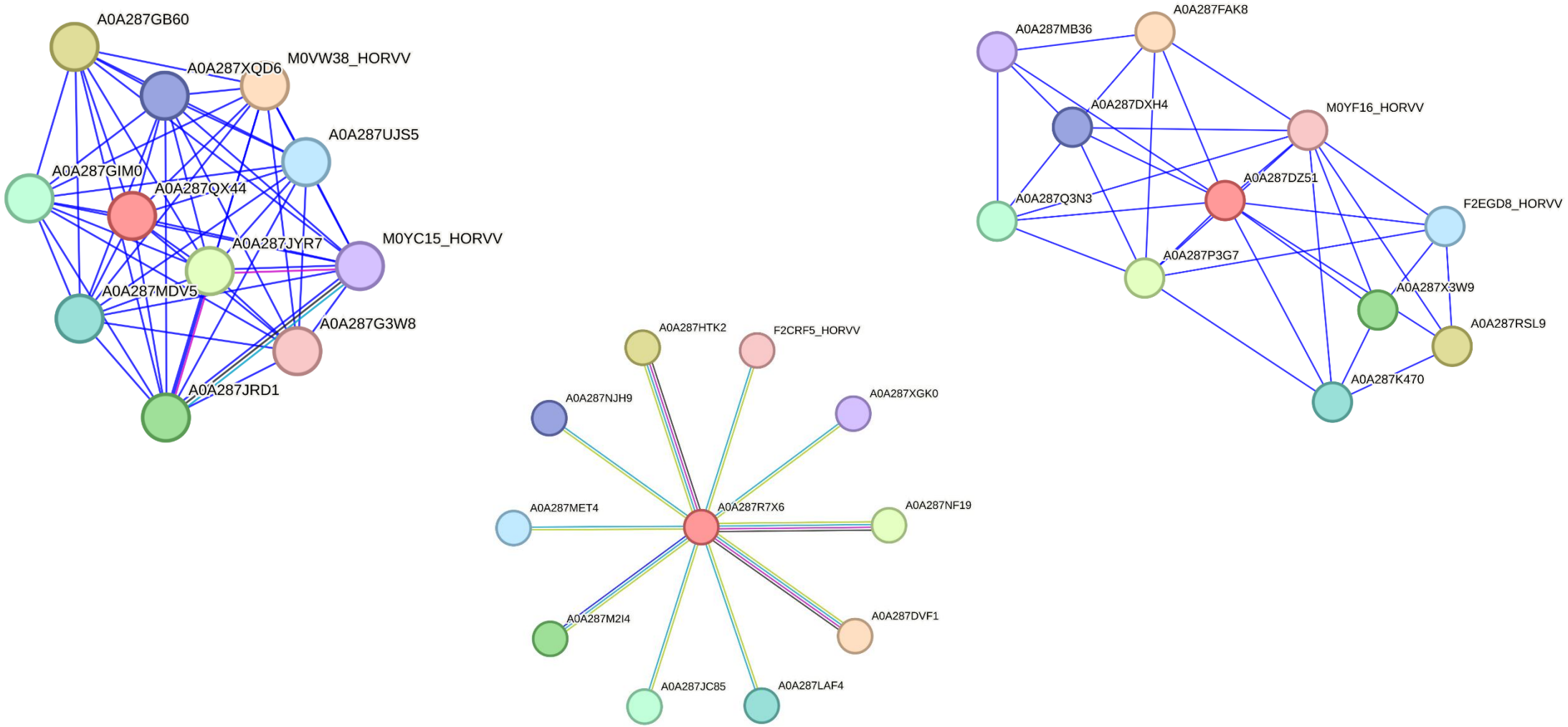


Fig. S143. Protein-protein interaction (PPI) network of HvLEAs clusters

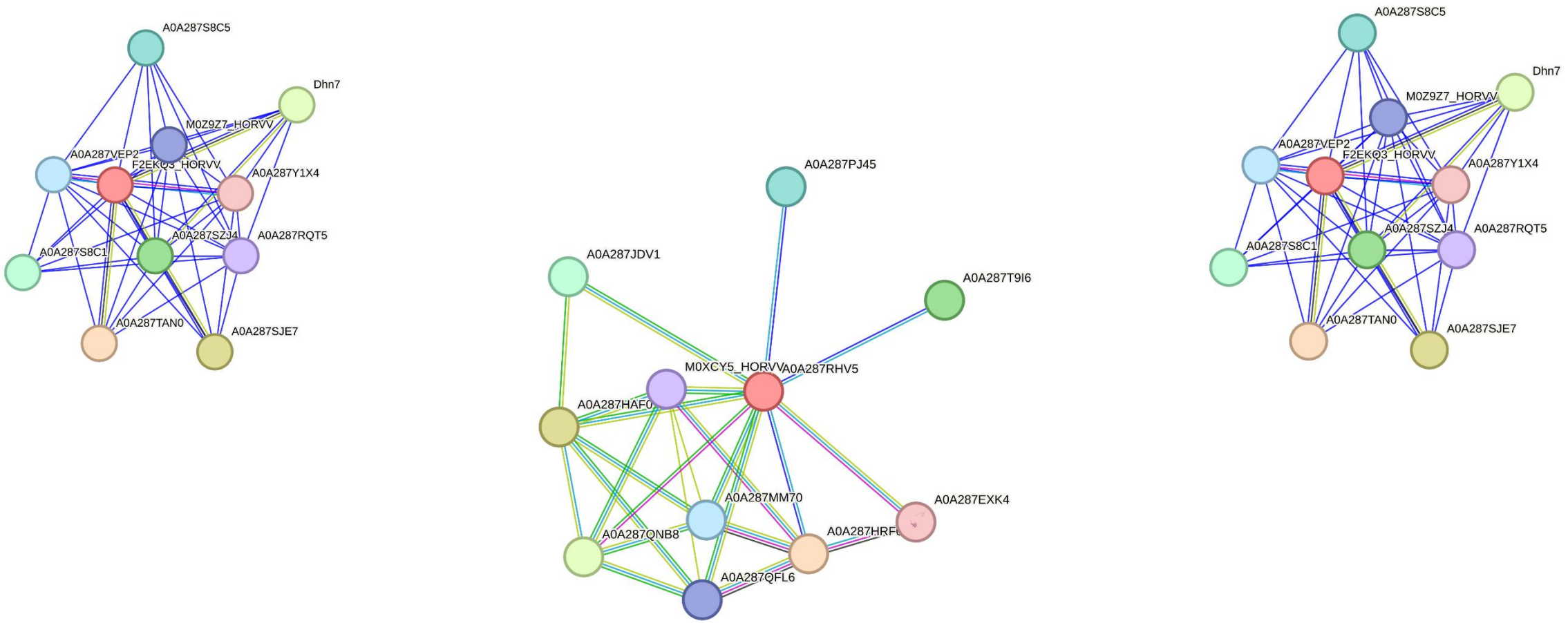


Fig. S144. Protein-protein interaction (PPI) network of HvLEAs clusters

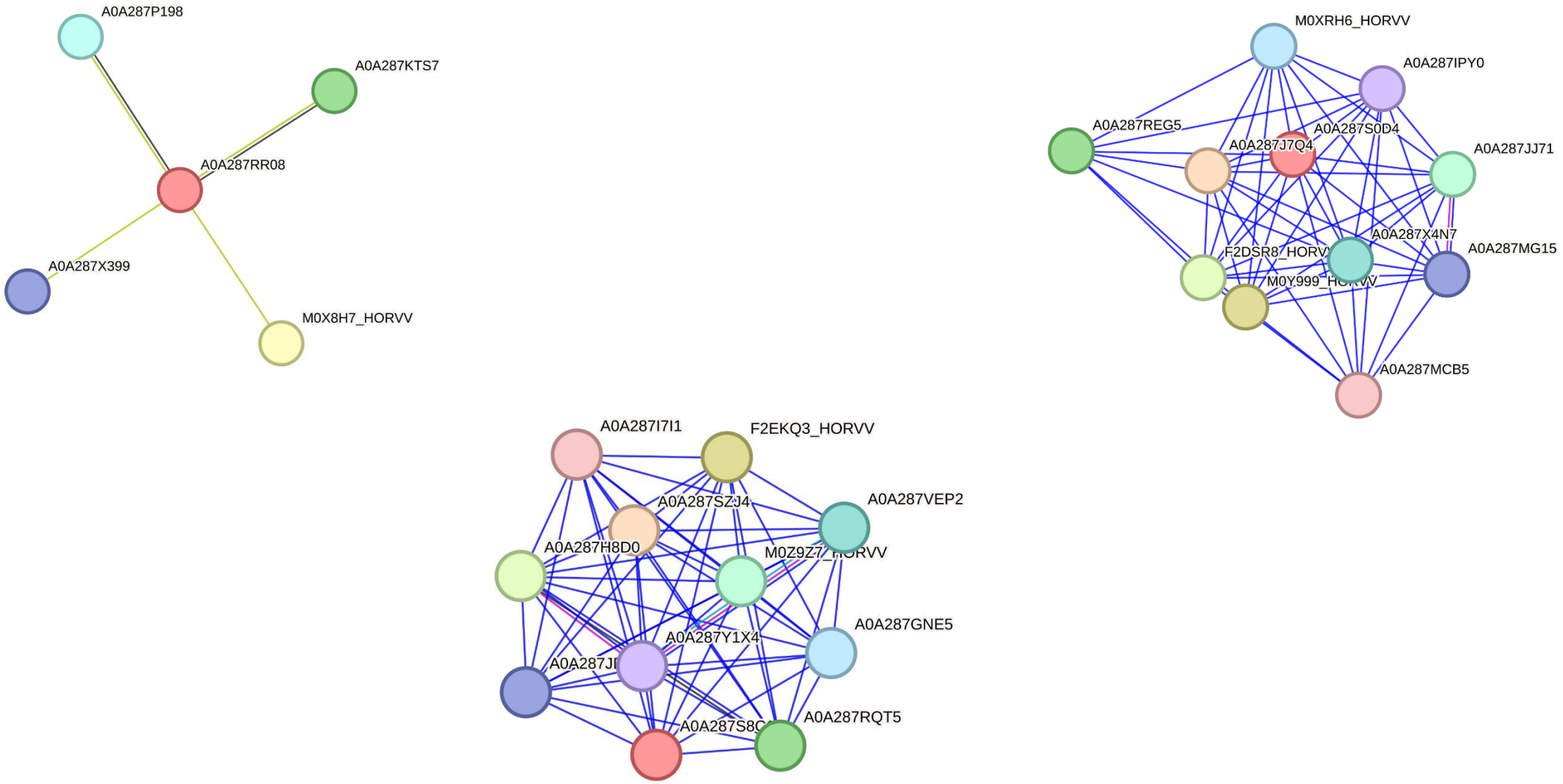


Fig. S145. Protein-protein interaction (PPI) network of HvLEAs clusters

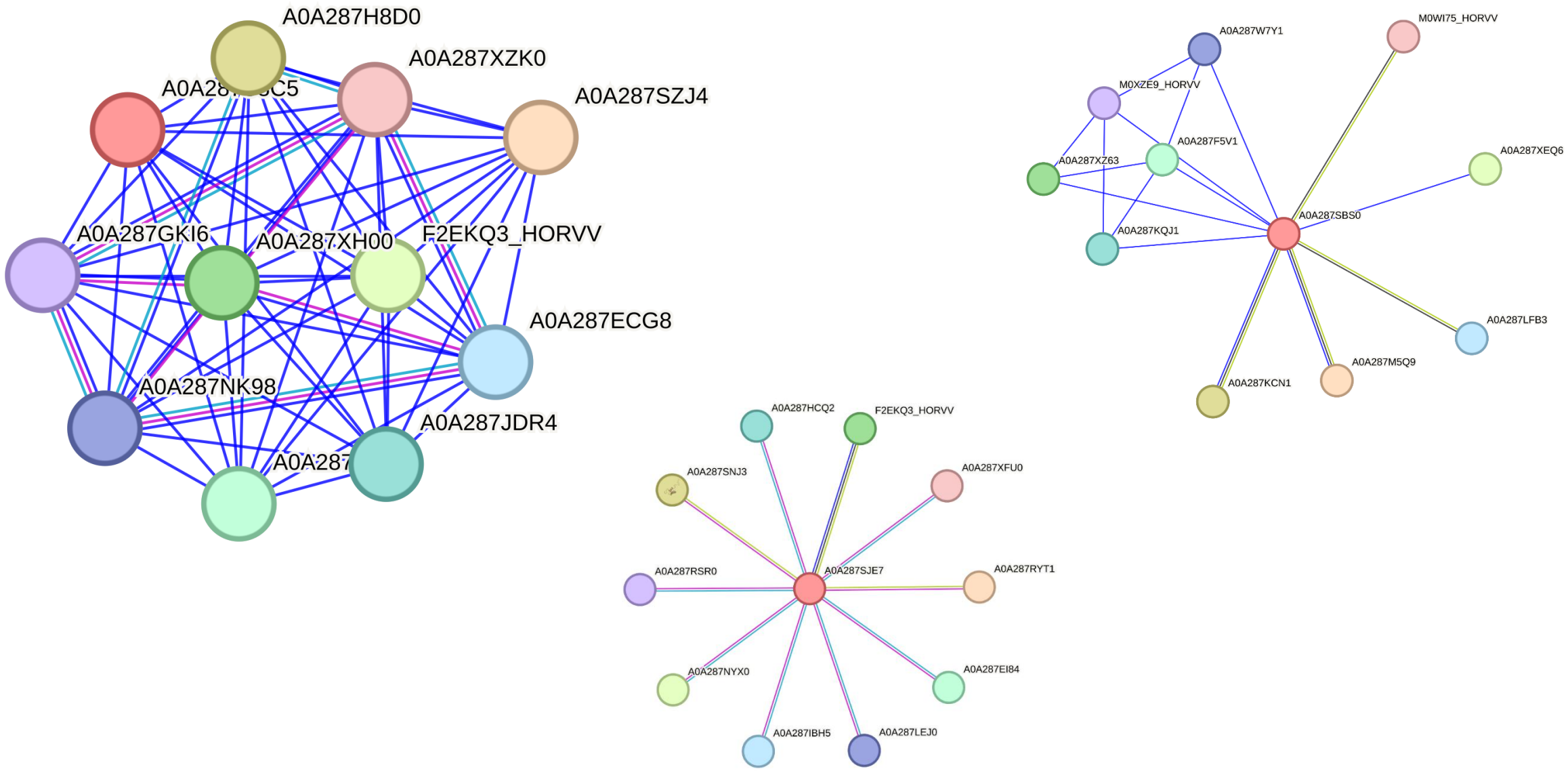


Fig. S146. Protein-protein interaction (PPI) network of HvLEAs clusters

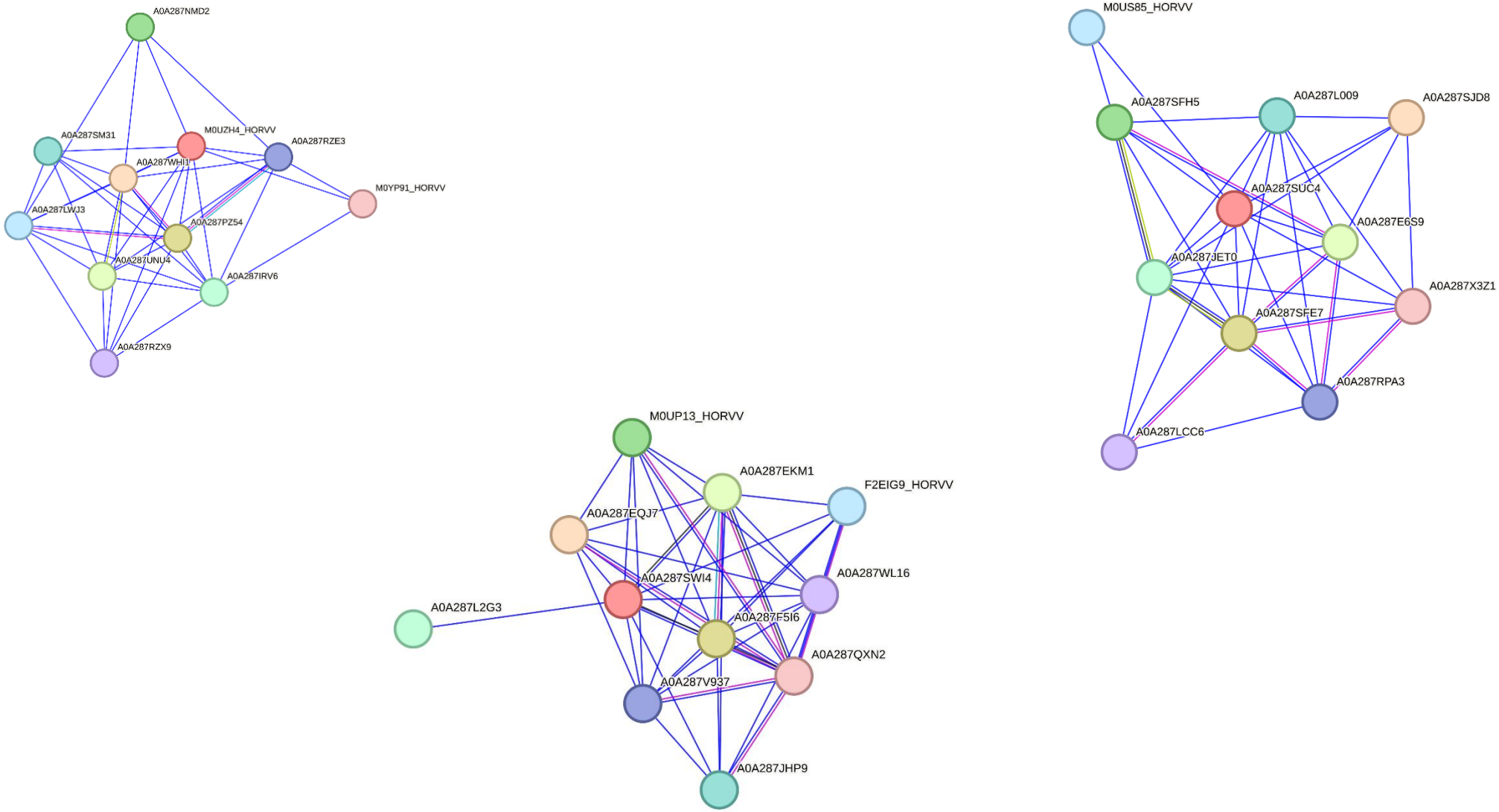


Fig. S147. Protein-protein interaction (PPI) network of HvLEAs clusters

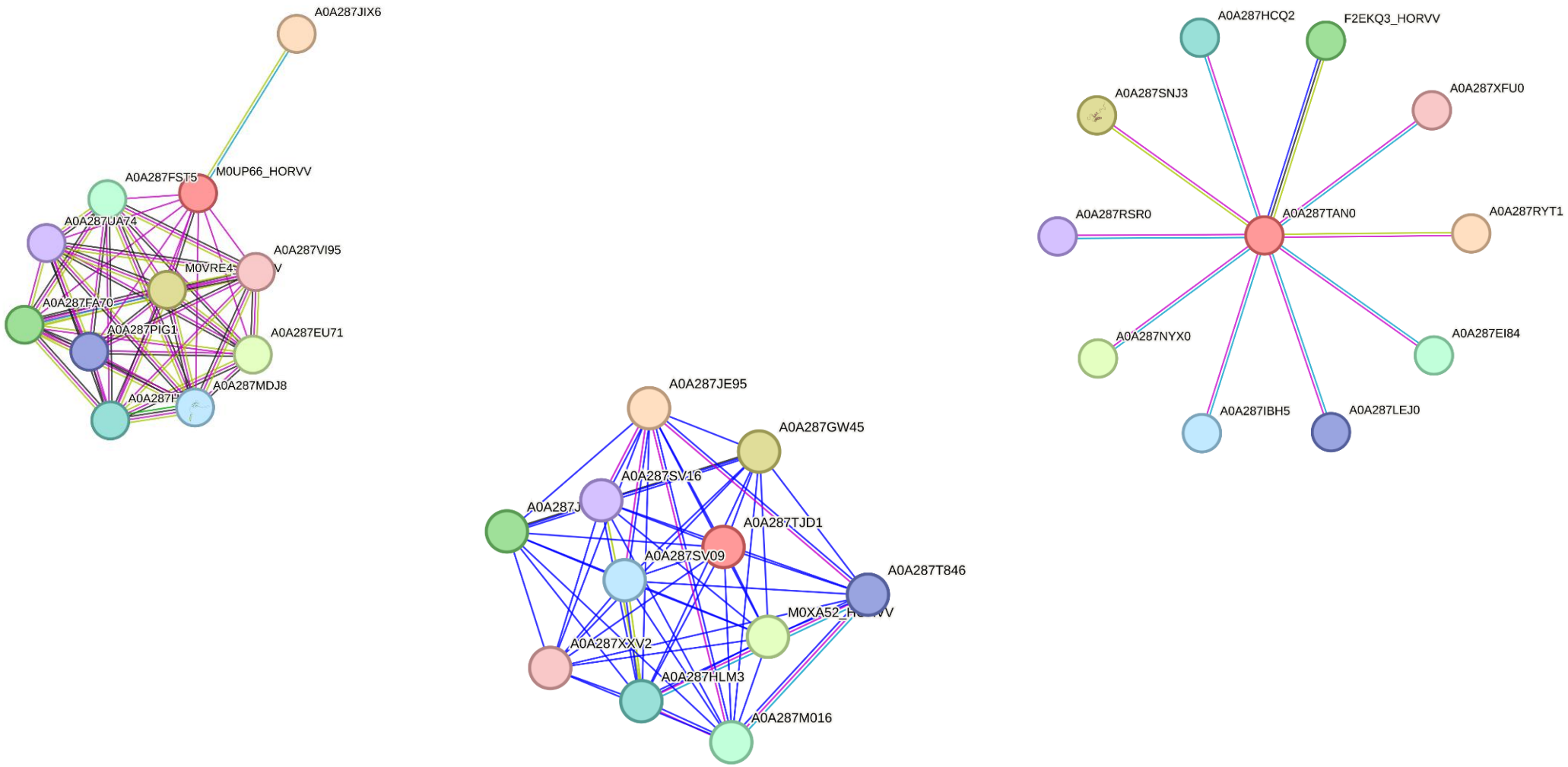


Fig. S148. Protein-protein interaction (PPI) network of HvLEAs clusters

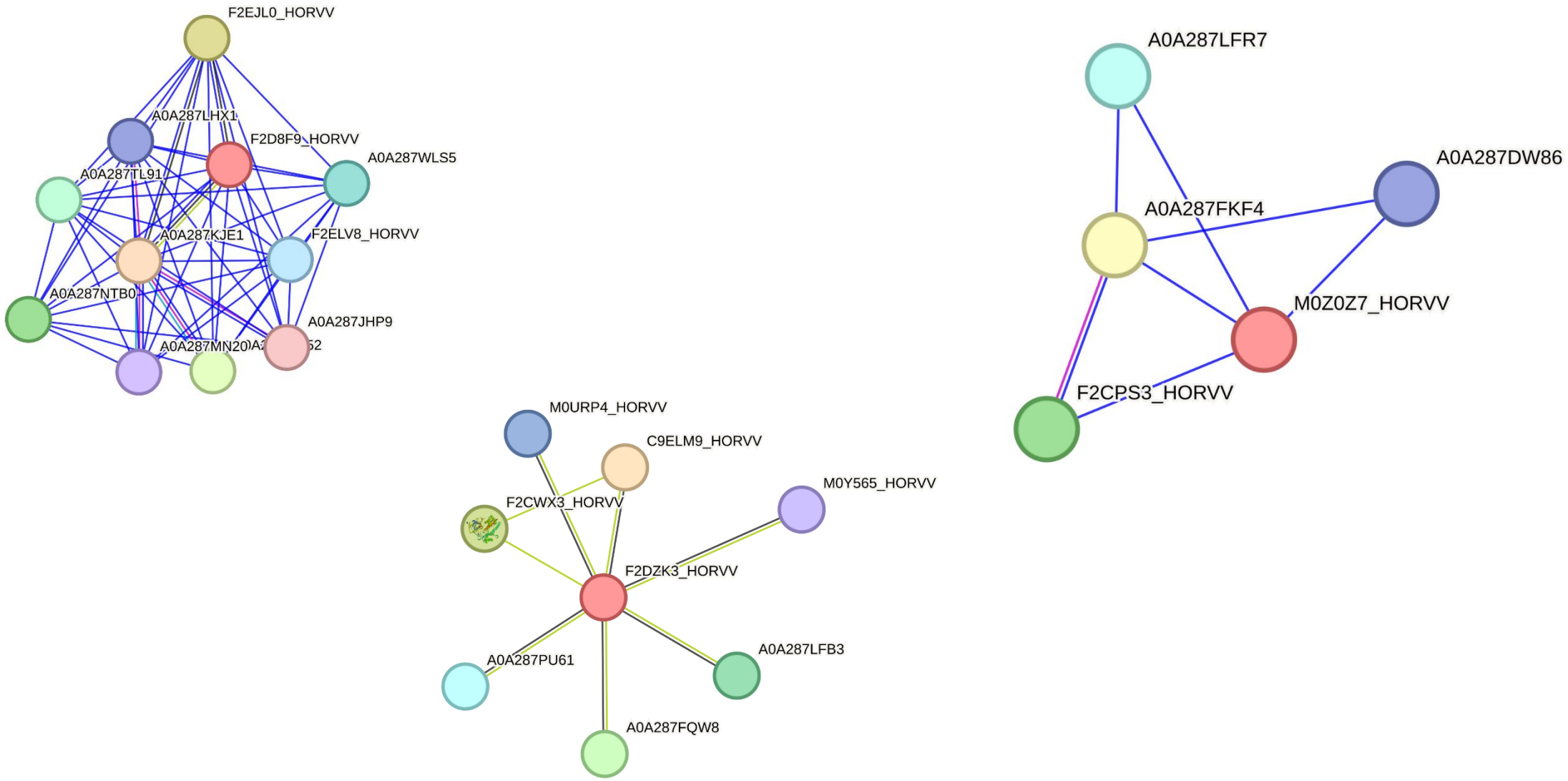


Fig. S149. Protein-protein interaction (PPI) network of HvLEAs clusters

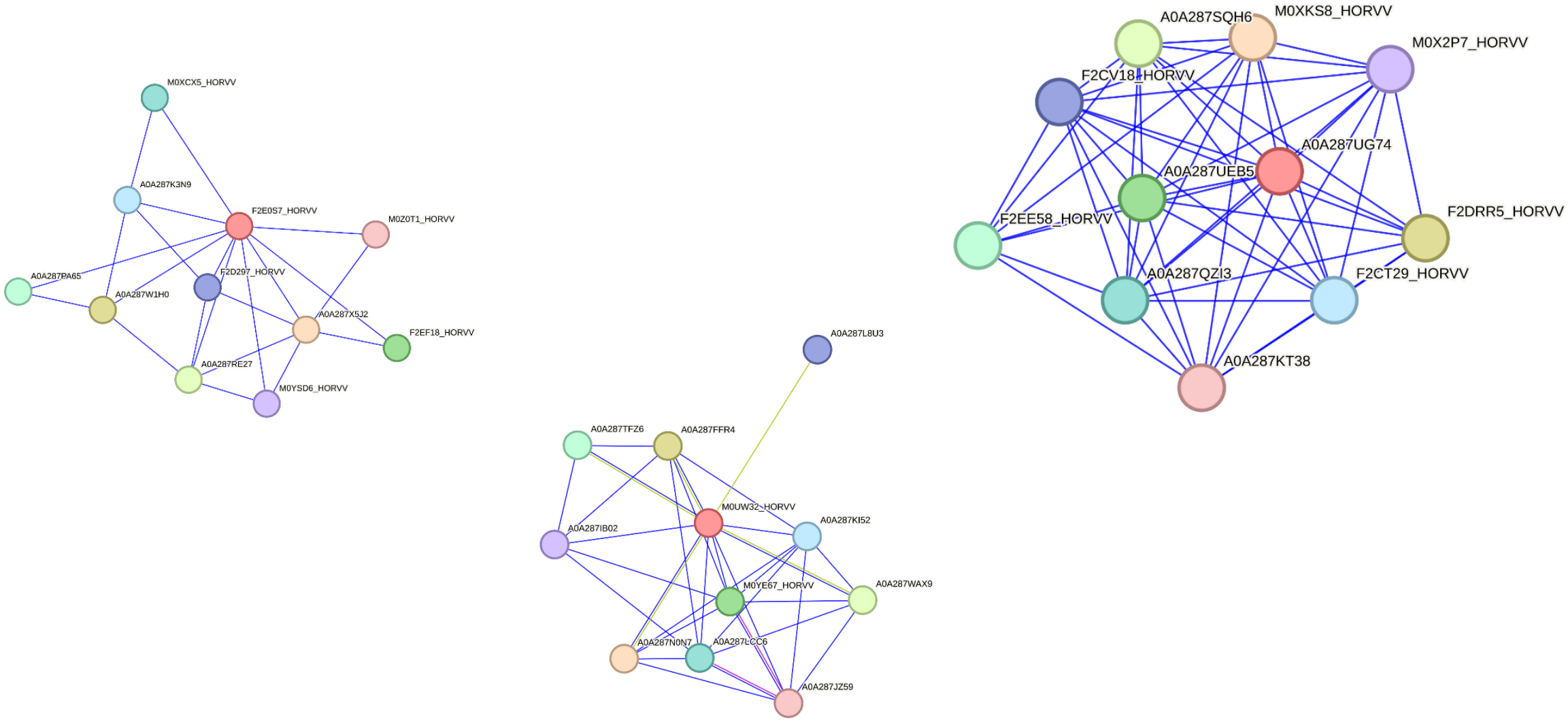


Fig. S150. Protein-protein interaction (PPI) network of HvLEAs clusters

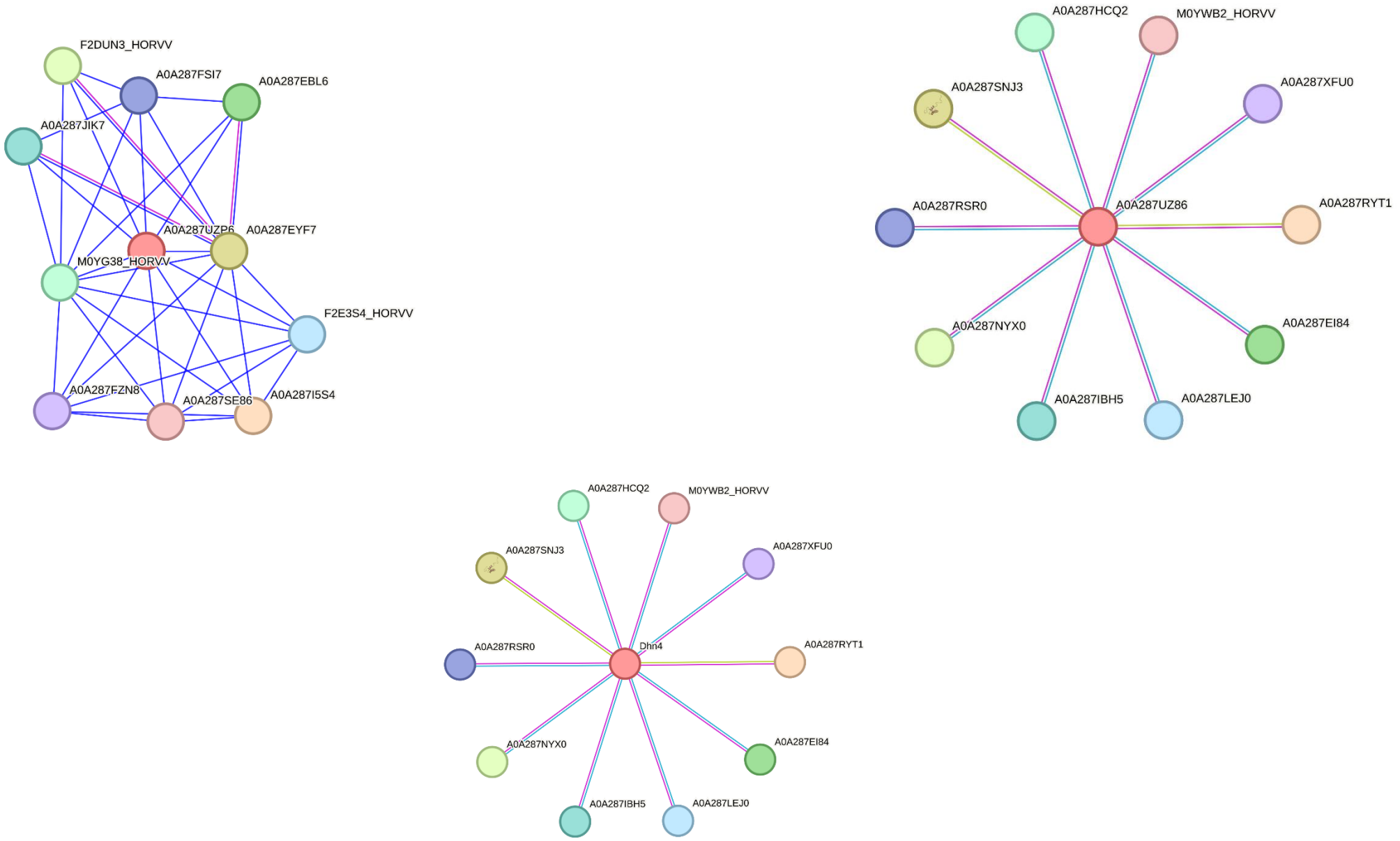


Fig. S151. Protein-protein interaction (PPI) network of HvLEAs clusters

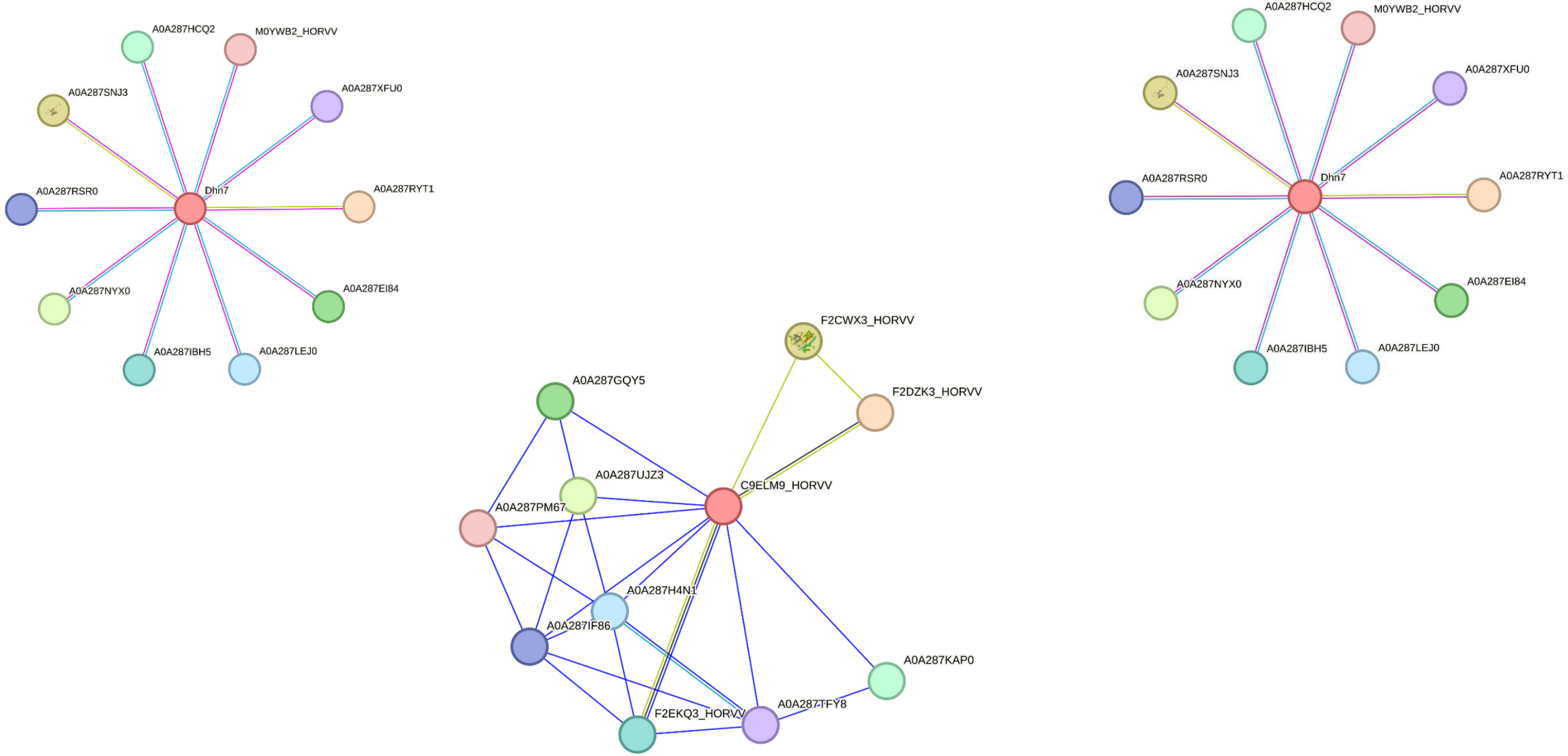


Fig. S152. Protein-protein interaction (PPI) network of HvLEAs clusters

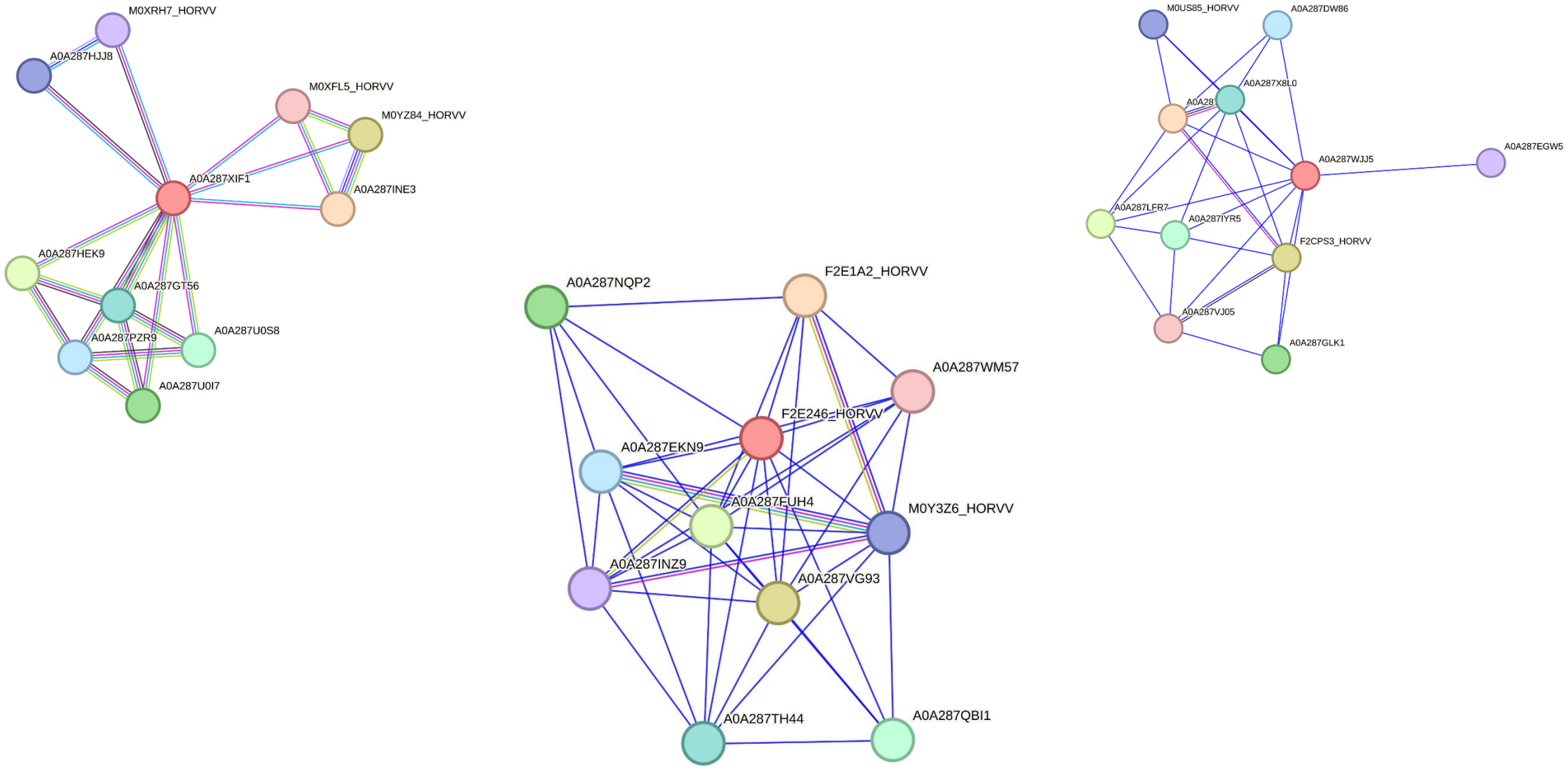


Fig. S153. Protein-protein interaction (PPI) network of HvLEAs clusters

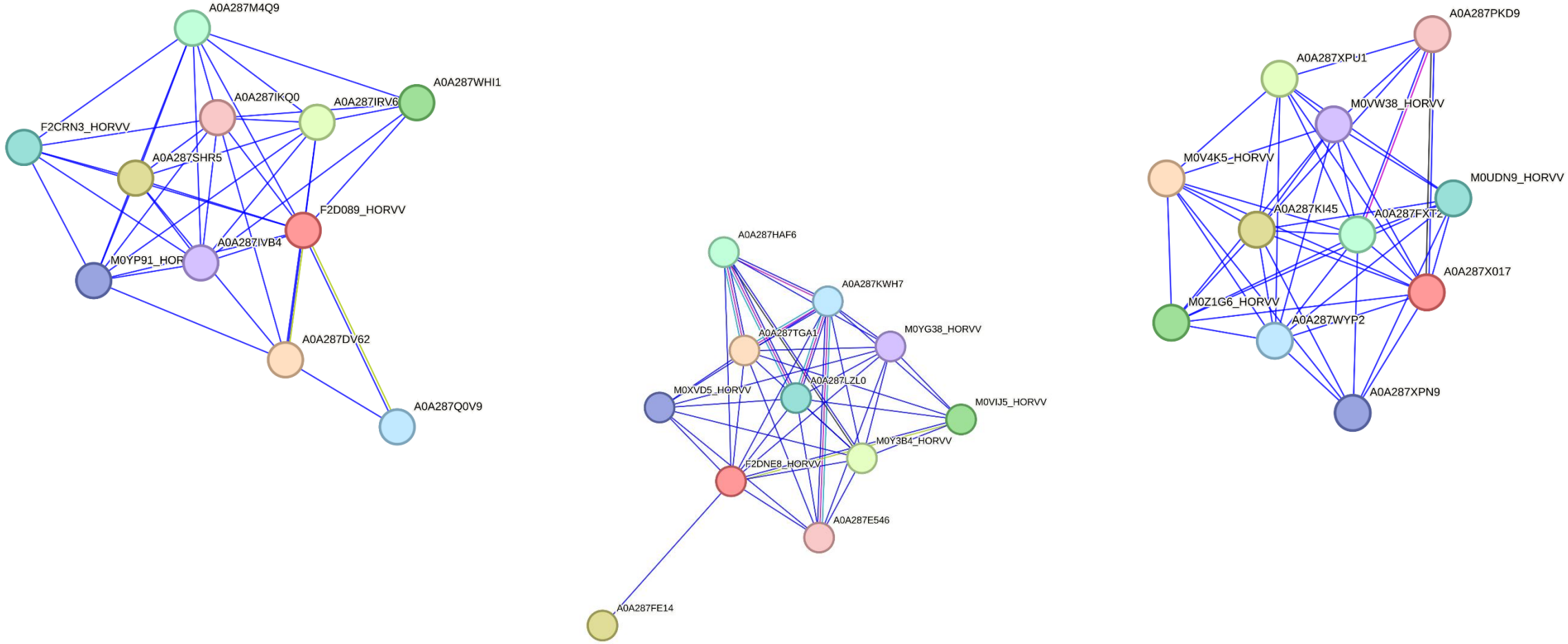


Fig. S154. Protein-protein interaction (PPI) network of HvLEAs clusters

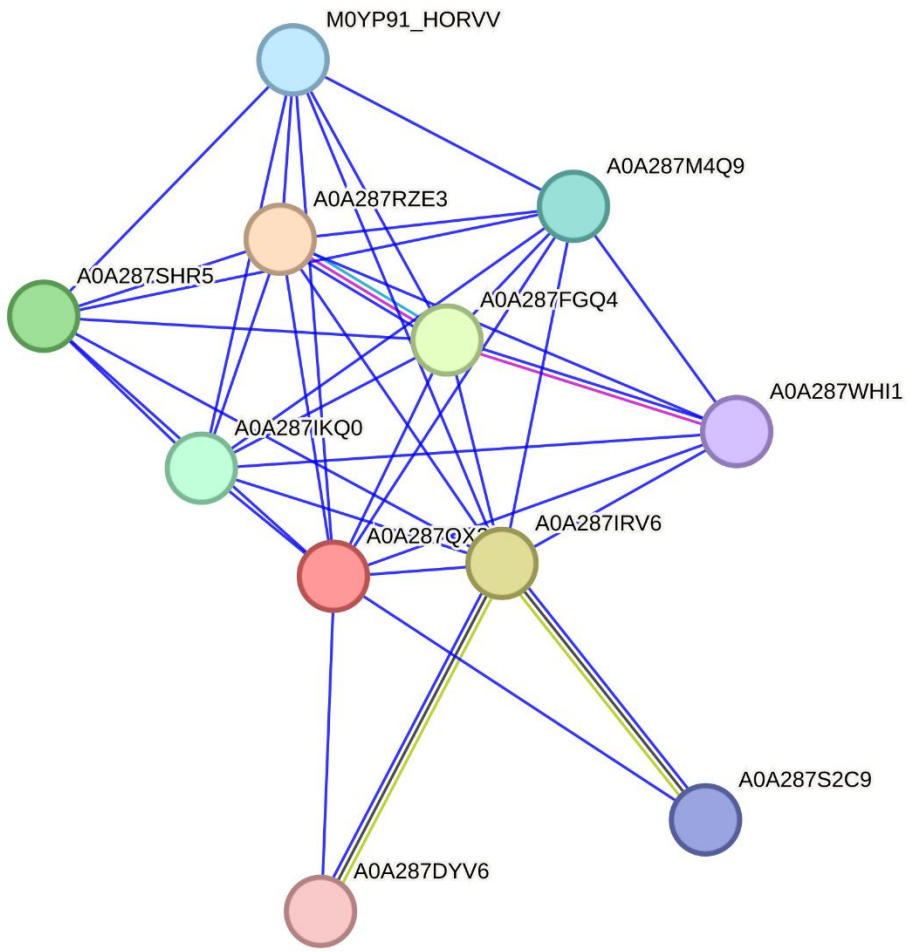


Fig. S155. Protein-protein interaction (PPI) network of HvLEAs clusters

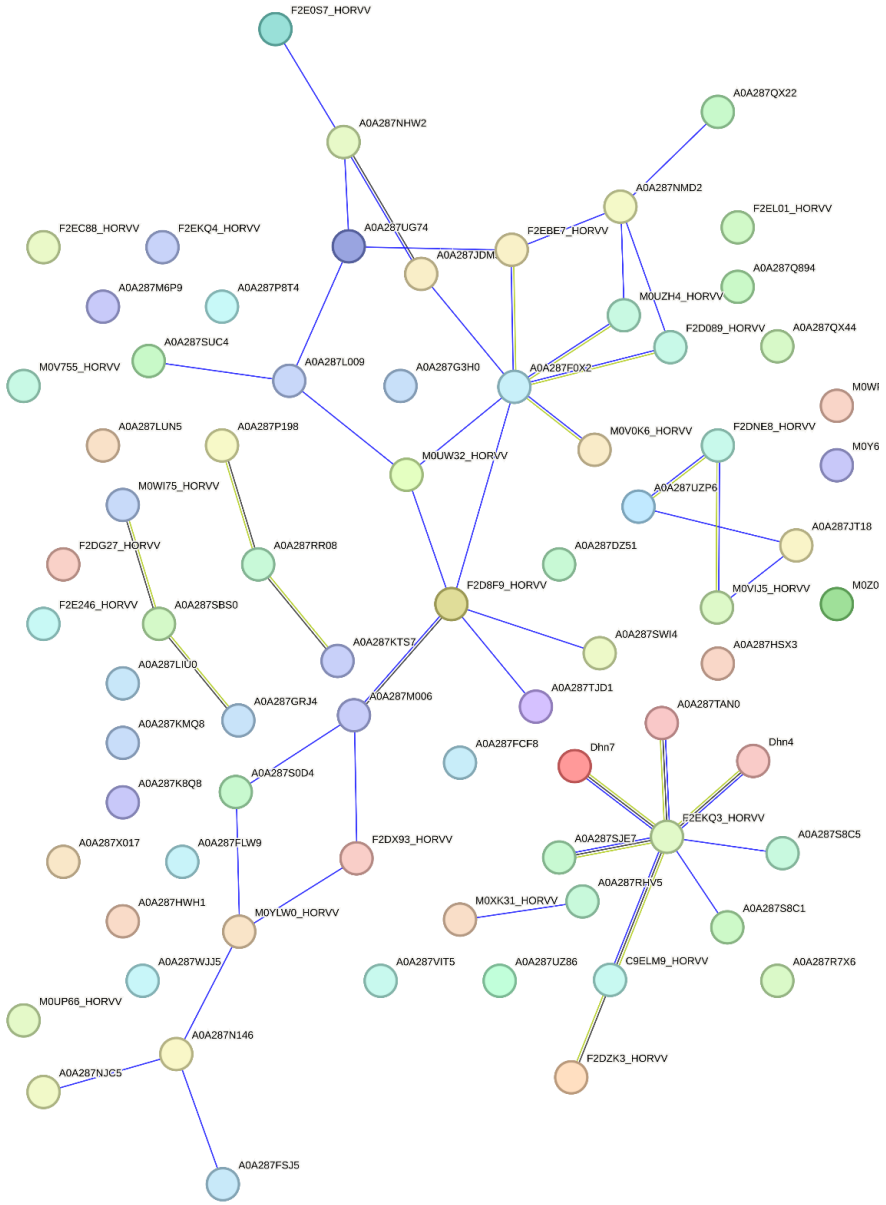
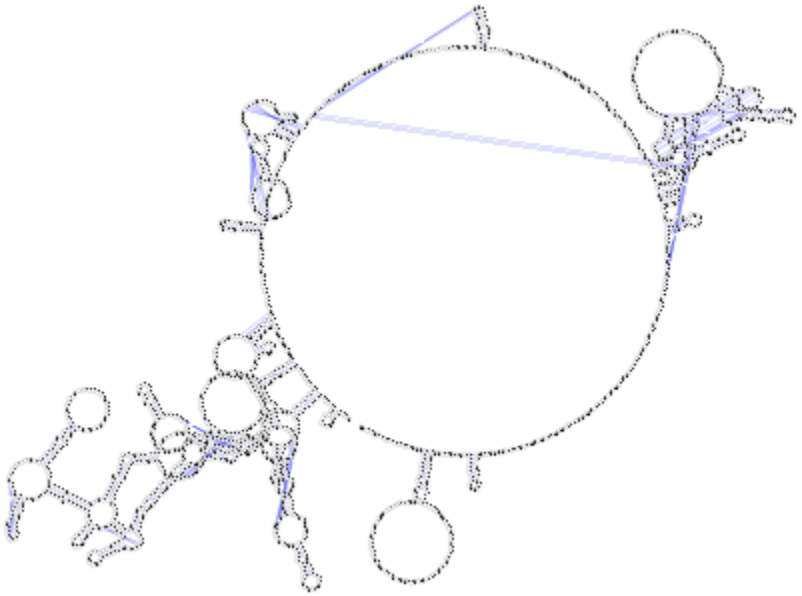


Fig. S156. Protein-protein interaction (PPI) network of HvLEAs in barley



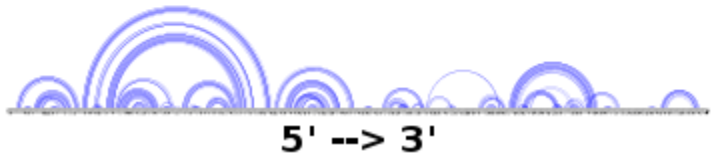
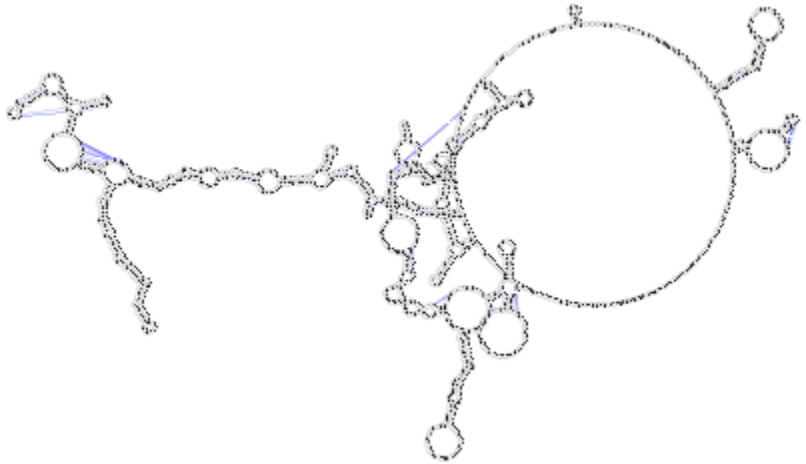


Fig. S157. Predicting RNA secondary structures of HvSnRK-39



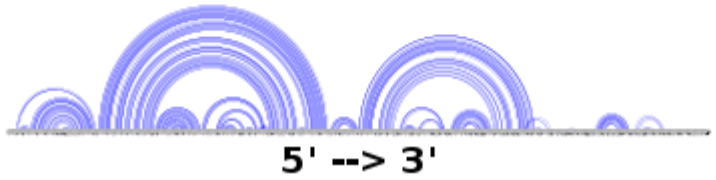
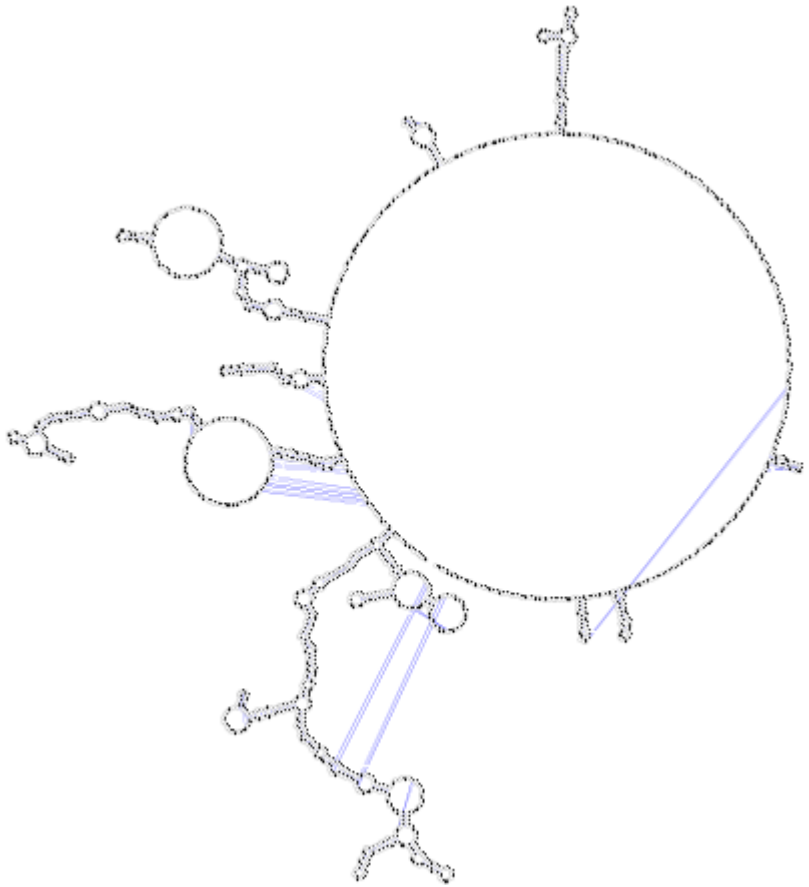


Fig. S158. Predicting RNA secondary structures of HvSnRK-65



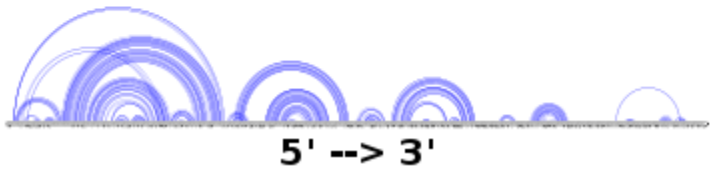
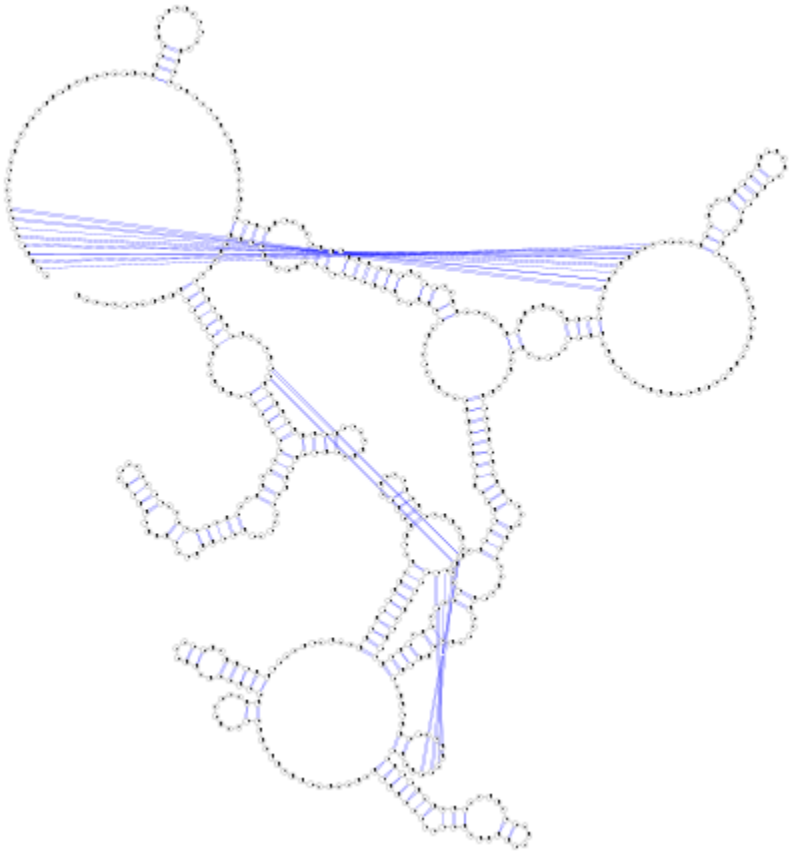


Fig. S159. Predicting RNA secondary structures of HvSnRK-70



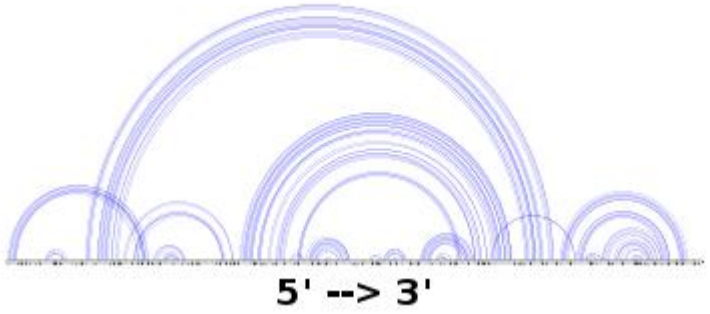
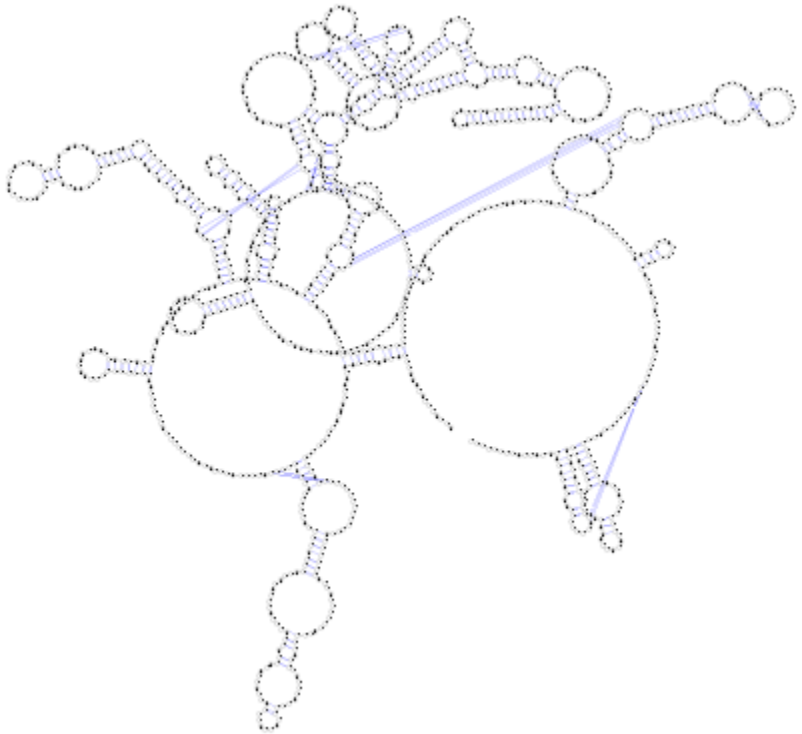


Fig. S160. Predicting RNA secondary structures of HvLEA-6



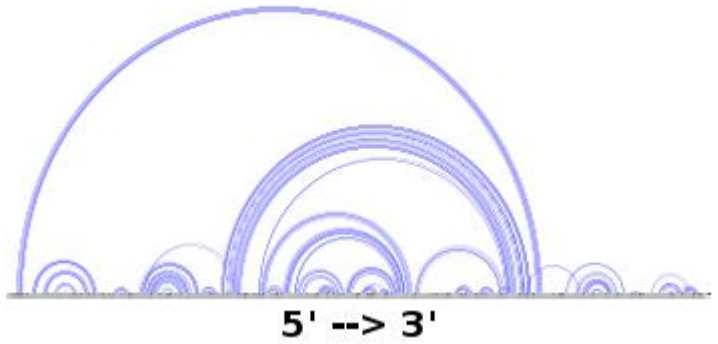


Fig. S161. Predicting RNA secondary structures of HvLEA-75

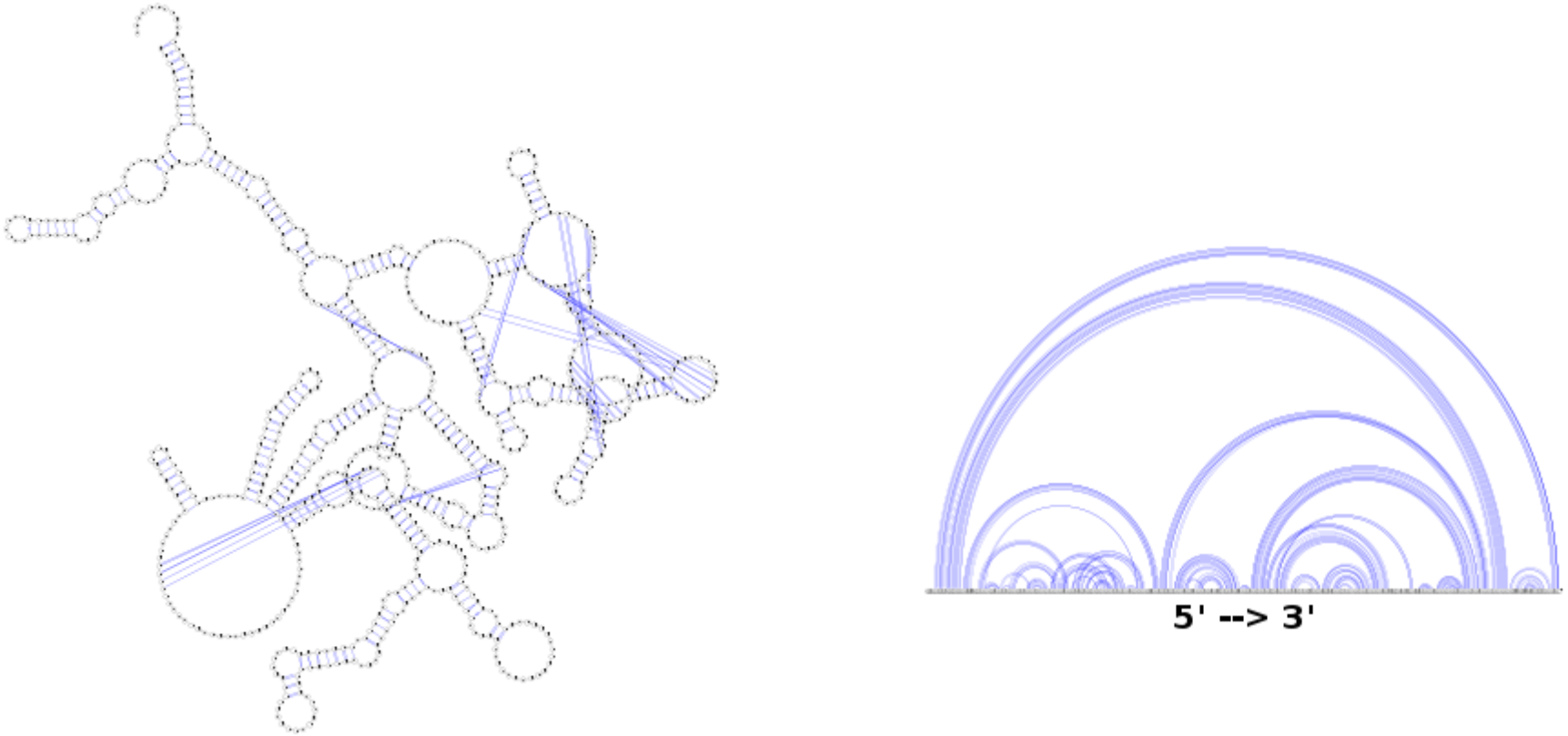


Fig. S162. Predicting RNA secondary structures of HvLEA-79

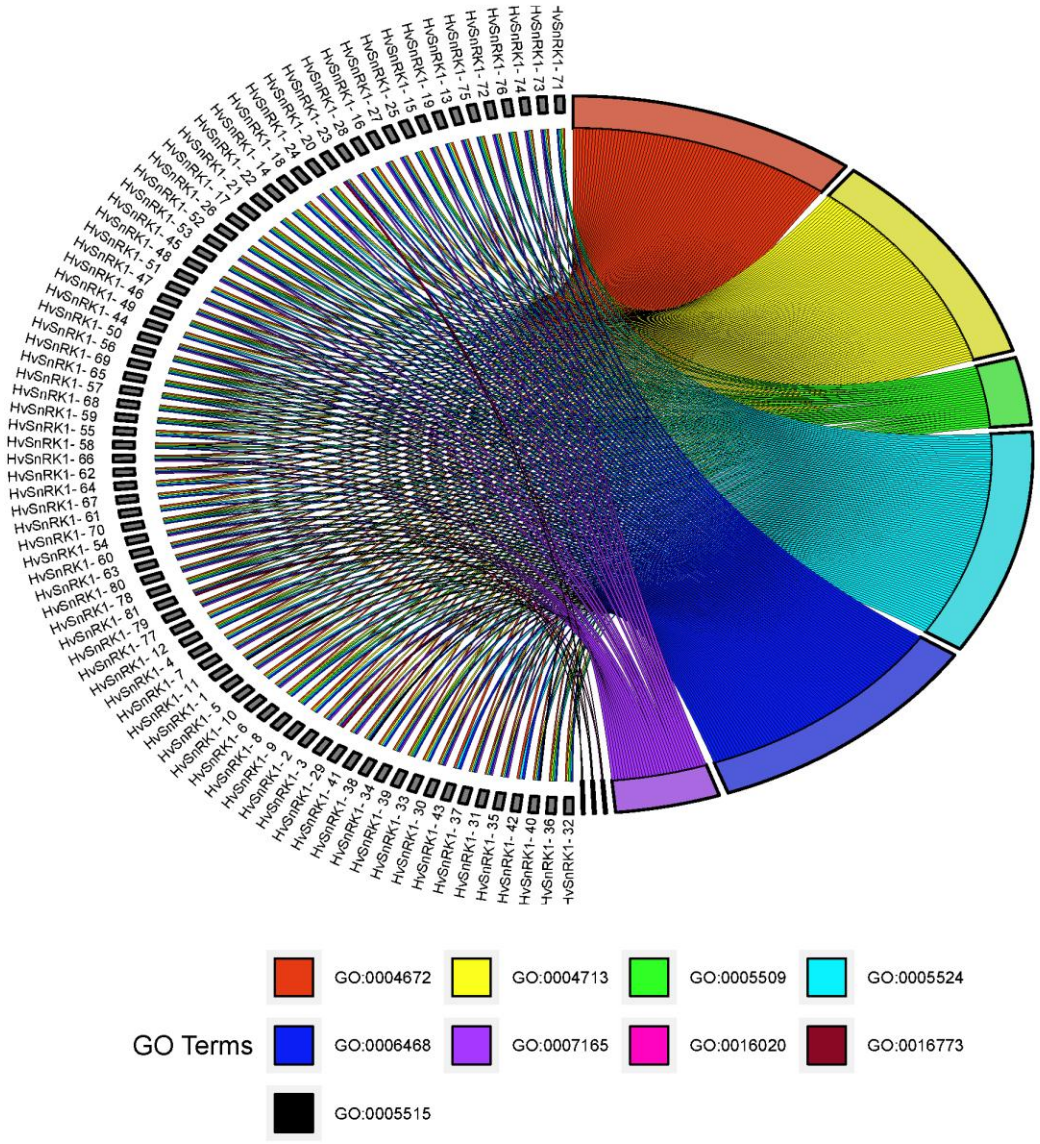


Fig. S163. GO terms for *HvSnRK* genes

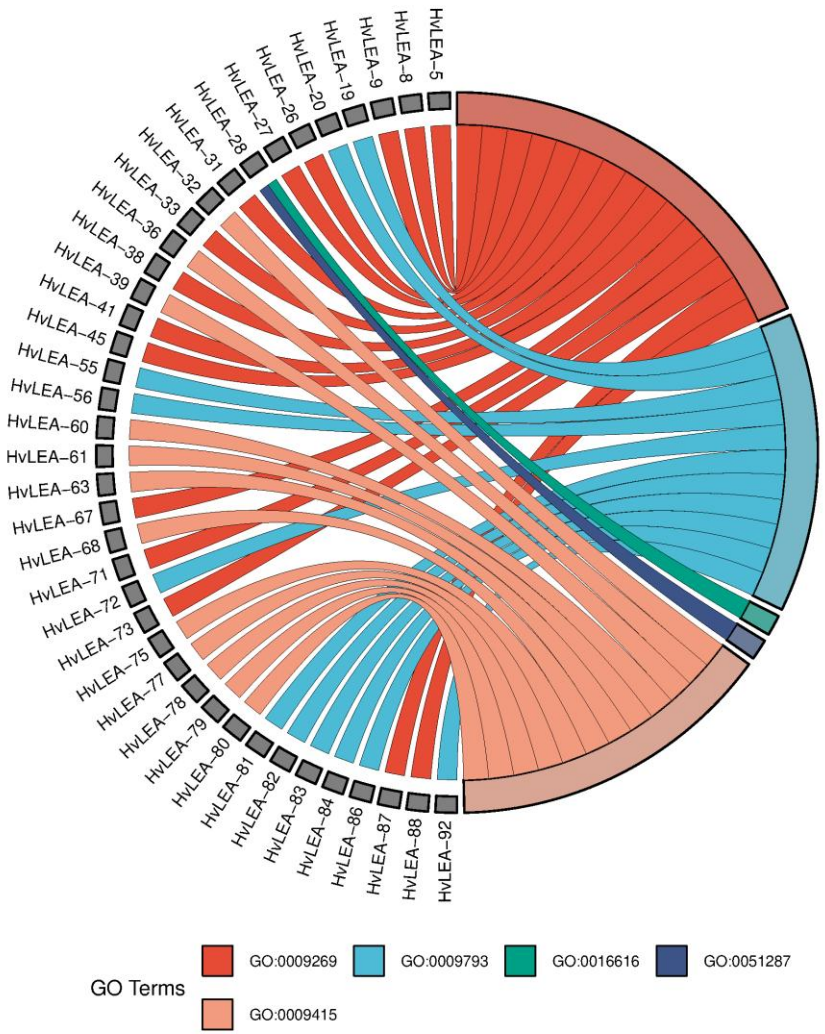


Fig. S164. GO terms for *HvLEA* genes

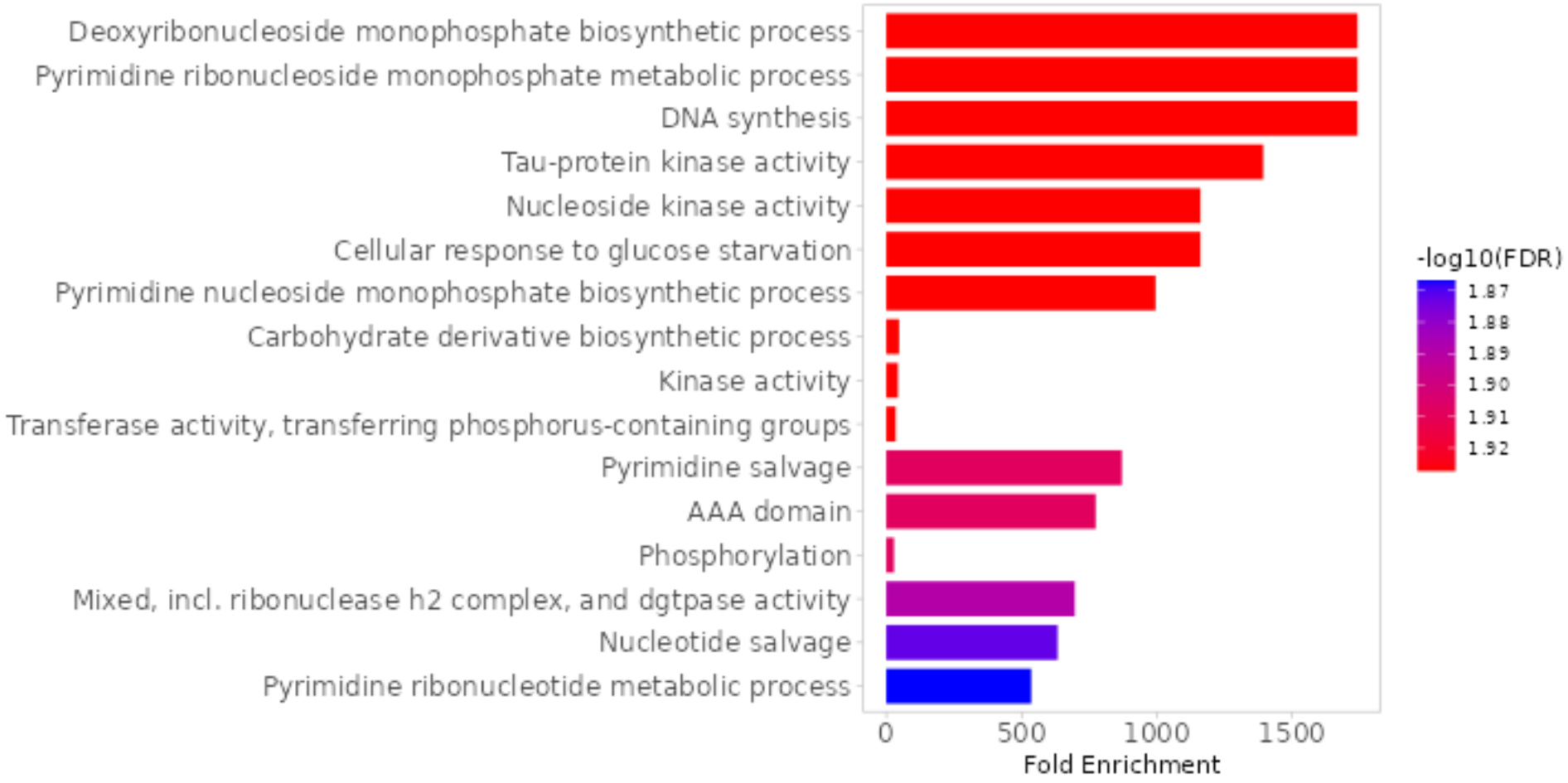


Fig. S165. Gene ontology enrichment analysis were confirmed the functional role of *HvSnRK* as a stress responsive

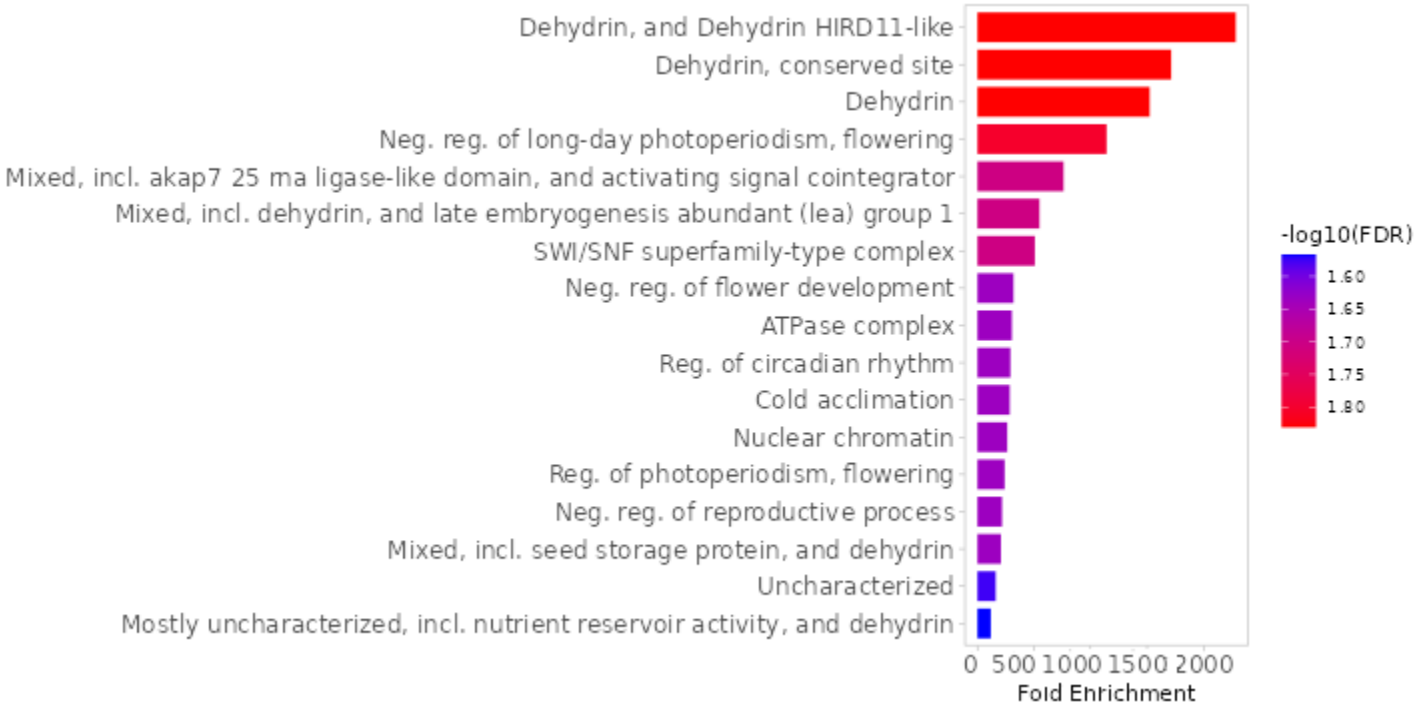


Fig. S166. Gene ontology enrichment analysis were confirmed the functional role of *HvLEA* as a stress responsive