

## Supplementary information

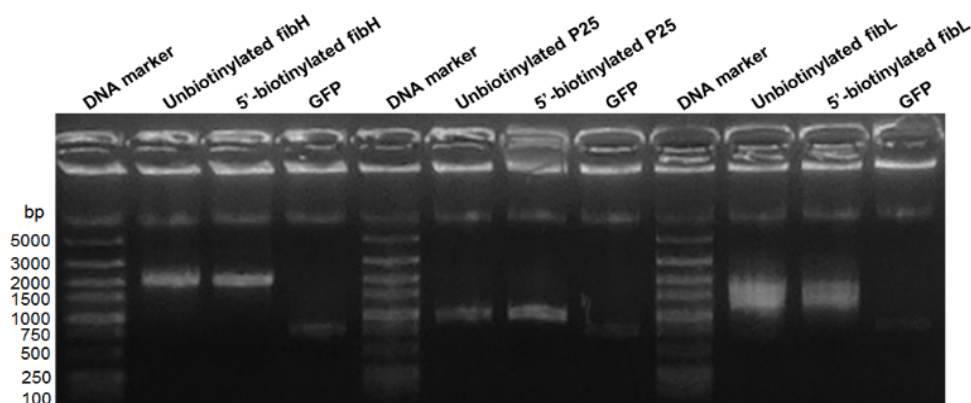
### New insights into the proteins interacting with the promoters of silkworm fibroin genes

Yan Ma<sup>1†</sup>, Qin Luo<sup>1†</sup>, Yao Ou<sup>1</sup>, Yiyun Tang<sup>1</sup>, Wenhui Zeng<sup>1</sup>, Haomiao Wang<sup>1</sup>, Jie Hu<sup>1</sup>, Hanfu Xu<sup>1\*</sup>

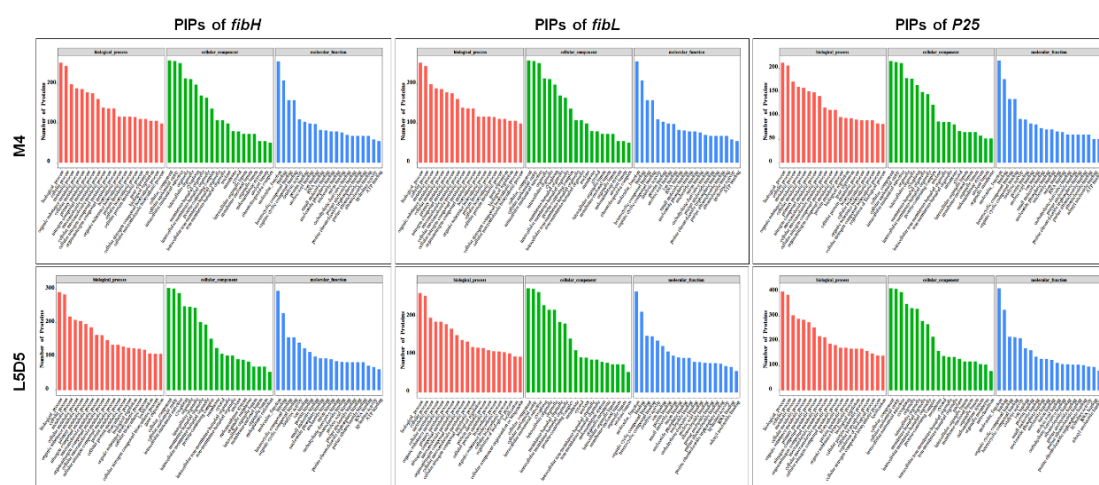
<sup>1</sup>State Key Laboratory of Silkworm Genome Biology, College of Sericulture, Textile and Biomass Sciences, Southwest University, Chongqing, 400715, China

\*Corresponding. xuhf@swu.edu.cn

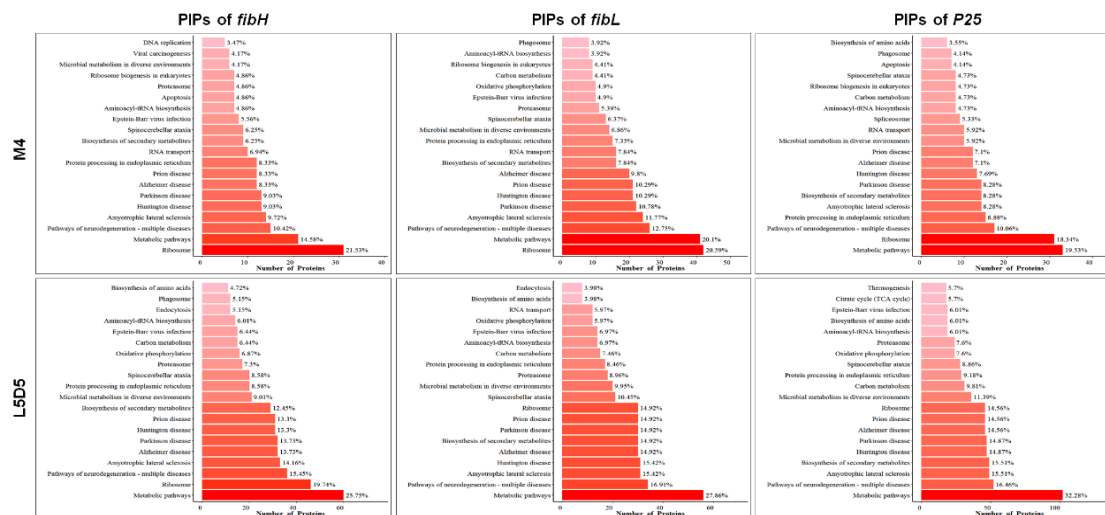
<sup>†</sup>These authors contributed equally to this work.



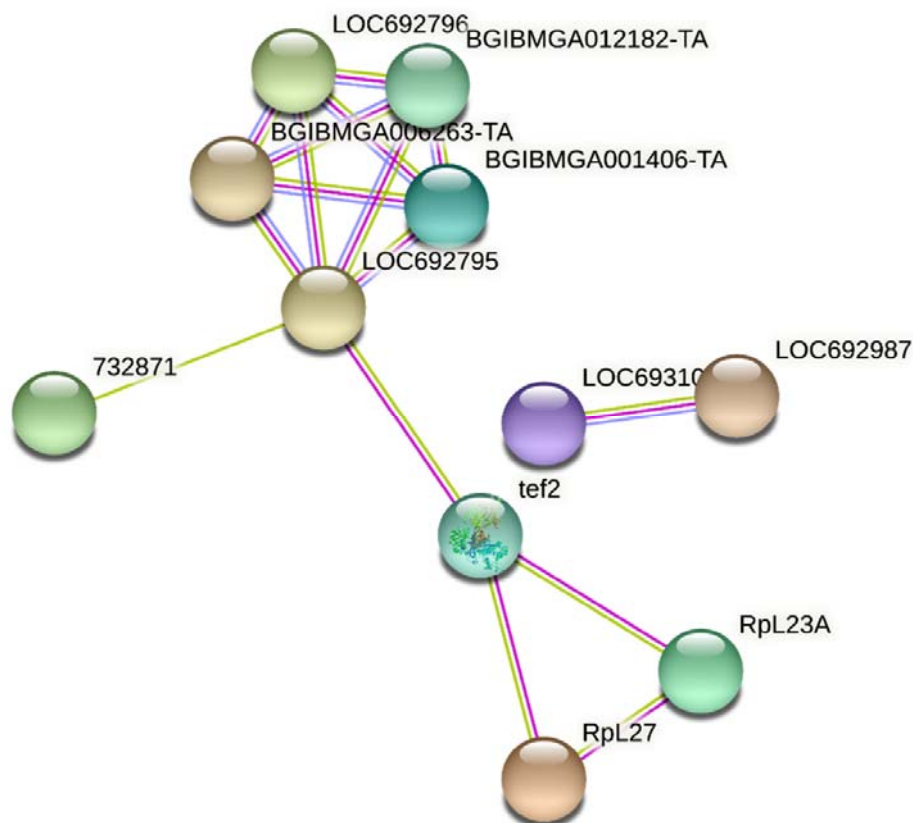
Supplementary Figure S1. Agarose gel electrophoresis of 5'-biotinylated and unbiotinylated DNA probes.



Supplementary Figure S2. GO annotation of candidate PIPs identified by HPLC-MS.



**Supplementary Figure S3. KEGG pathway annotation of candidate PIPs identified by HPLC-MS.**



**Supplementary Figure S4. Protein-protein interaction networks among the TFs interacting with fibroin gene promoters.** Colored lines represent interaction relationships between the nodes generated based on the available evidence in the STRING database. Minimum required interaction score: high confidence (0.700); PPI enrichment  $p$ -value:  $1.71 \times 10^{-8}$ .

**Supplementary Table S1. Summary of the identified PIPs of fibroin genes.**

**Supplementary Table S2. Common PIPs of each fibroin gene in the M4 and L5D5 PSGs.**

**Supplementary Table S3. Unique PIPs of each fibroin gene in the M4 and L5D5 PSGs.**

**Supplementary Table S4. Common PIPs shared by the three fibroin genes.**

**Supplementary Table S5. Primer sequences used in this study.**

Name	Primer sequences (5' → 3')
fibH-BF	bio-GGTACCAGATAACGGATATAAATG
fibH-F	GGTACCAGATAACGGATATAAATG
fibH-R	GCTAGCCTTGAGAGTTGG
fibL-BF	bio-TAACAAAGTGGTGCCTATCC
fibL-F	TAACAAAGTGGTGCCTATCC
fibL-R	TTTAGTGGTCTGTTATGTGACCAATC
P25-BF	bio-CGCCACTGAGTCGCATTA
P25-F	CGCCACTGAGTCGCATTA
P25-R	GTTGCGCGAATAATAACAACACTG
GFP-F	ATGGAGAGCGACGAGAGC
GFP-R	GCGAGATCCGGTGGAGCC