

## Supplementary Materials

### **Distinct structural features associated with conformational epitopes of amyloid $\beta$ fibrils revealed using mathematical geometric measures**

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**Table S1:** A $\beta$  fibril structure used in this work with its properties.

PDB code	Source	Residues in the used peptide	Residues Observed in the structure	method	Mutation (N: wild-type)
2beg	Recombinant	1-42	17-42	NMR	N
2lmn	Recombinant	1-40	9-40	NMR	N
2lmo	Recombinant	1-40	9-40	NMR	N
2lmp	Recombinant	1-40	9-40	NMR	N
2lmq	Recombinant	1-40	9-40	NMR	N
2lnq	Recombinant	1-40	15-40	NMR	Iowa mutation D23N
2m4j	Recombinant	1-40	1-40	NMR	N
2mpz	Recombinant	1-40	15-40	NMR	Iowa mutation D23N
2mxu	Recombinant	1-42	11-42	NMR	N
2nao	Recombinant	1-42	1-42	NMR	N
5kk3	Recombinant	1-42	11-42	NMR	N
6oiz	Synthetic	1-42	20-34	EC	N
6shs	Clinical	1-40	1-40	EM	N
6it5	Recombinant	1-40	11-40	NMR	N
6ti6	Recombinant	1-40, 1-42	11-42	NMR	N
6o0w	Recombinant	1-40	10-40	EM; NMR	N
7f29	Synthetic	1-42	6-42	EM	Glycosylated at Tyr10
7q4b	Clinical	1-42	9-42	EM	N
7q4m	Clinical	1-42	12-42	EM	N
8azs	Clinical	1-42	9-42	EM	N
8azt	Clinical	1-42	12-42	EM	N
8bfa	Recombinant	1-42	1-38	EM	Arctic mutation E22G
8bfb	Recombinant	1-42	1-38	EM	Arctic mutation E22G
8bfz	Clinical	1-42	12-42	EM	Arctic mutation E22G
8bg0	Clinical	1-40	11-37, 12-40	EM	Arctic mutation E22G
8bg9	Recombinant	1-40	1-37	EM	Arctic mutation E22G
8ezd	Recombinant	1-42	12-42	EM	N
8eze	Recombinant	1-42	1-42	EM	N
8kew	Clinical	1-42	9-42	EM	N
8kf1	Clinical	1-42	9-42	EM	N
8kf3	Clinical	1-42	9-42,12-42	EM	N

8kf4	Clinical	1-42	9-42	EM	N
8kf5	Clinical	1-42	9-42	EM	N
8kf6	Clinical	1-42	9-42, 12-42	EM	N
8ol2	Recombinant	1-42	12-42	EM	N
8ol3	Recombinant	1-42	10-42	EM	N
8ol5	Recombinant	1-42	12-42	EM	N
8ol6	Recombinant	1-42	12-42	EM	N
8ol7	Recombinant	1-42	9-40	EM	Arctic mutation E22G
8olg	Recombinant	1-42	1-39	EM	Arctic, iowa E22G & D23N
8oln	Recombinant	1-42	1-36	EM	Arctic, iowa E22G & D23N
8olo	Recombinant	1-42	10-40	EM	N
8olq	Recombinant	1-42	2-33	EM	Arctic, iowa E22G & D23N
8ot1	Recombinant	1-40	13-40	EM	N
8ot3	Recombinant	1-40	13-40	EM	N
8ot4	Recombinant	1-40	1-37	EM	N
8otf	Clinical	1-42	12-42	EM	N
8ovk	Recombinant	1-40	1-40	EM	N
8ovm	Recombinant	1-40	5-40	EM	N
8owd	Recombinant	1-40	1-40	EM	N
8owe	Recombinant	1-40	1-40, 4-40	EM	N
8owj	Recombinant	1-40	5-40	EM	N
8owk	Recombinant	1-40	1-40	EM	N
8qn6	Clinical	1-40	1-38	EM	N
8qn7	Clinical	1-40	1-38	EM	N
8sej	Clinical	1-42	9-42	EM	Down syndrome + AD
8sek	Clinical	1-40	9-40	EM	Down syndrome + AD
8sel	Clinical	1-40	8-40, 1-40	EM	Down syndrome + AD
9jaz	Synthetic	1-42	9-42	EM	D-Asp23
9jb0	Synthetic	1-42	9-42	EM	D-Asp23
9jb1	Synthetic	1-42	9-42	EM	D-Asp7&23
9jb2	Synthetic	1-42	9-42, 1-42, 15-42	EM	D-Asp7&23

**Table S2:** The number of peptides having their aaWr(*l*) values of lacanemab (21-29) epitope greater than 95% percentile rank of the aaWr(*l*) values for A $\beta$  fibrils, and the mean percentile rank over all peptides.

PDB code <sup>a)</sup>	Number of peptides in the fibril	Number of peptides having aaWr( <i>l</i> ) > 95% percentile rank: aaWr( <i>l</i> )*	Mean percentile rank (%)
2beg	5	0	54
<b>2lmn</b>	12	4	84
<b>2lmo</b>	12	2	75
2lmp	18	0	57
<b>2lmq</b>	18	1	75
2lnq	8	0	72
2m4j	9	0	63
2mpz	27	0	61
2mxu	12	0	10
2nao	6	0	66
<b>5kk3</b>	18	9	79
6oiz	1	0	29
6shs	12	0	59
<b>6it5</b>	16	9	84
6ti6	8	0	58
6o0w	6	0	89
7f29	6	0	31
7q4b	10	0	46
<b>7q4m</b>	10	10	96
8azs	1	0	69
<b>8azt</b>	1	1	95
8bfa	10	0	80
8bfb	10	0	80
<b>8bfz</b>	2	2	100
8bg0 (11-37)	2	0	84
8bg0 (12-40)	2	0	83
8bg9	2	0	57
8ezd	8	0	74
<b>8eze</b>	8	8	100
8kew	6	0	38
8kfl	12	0	76

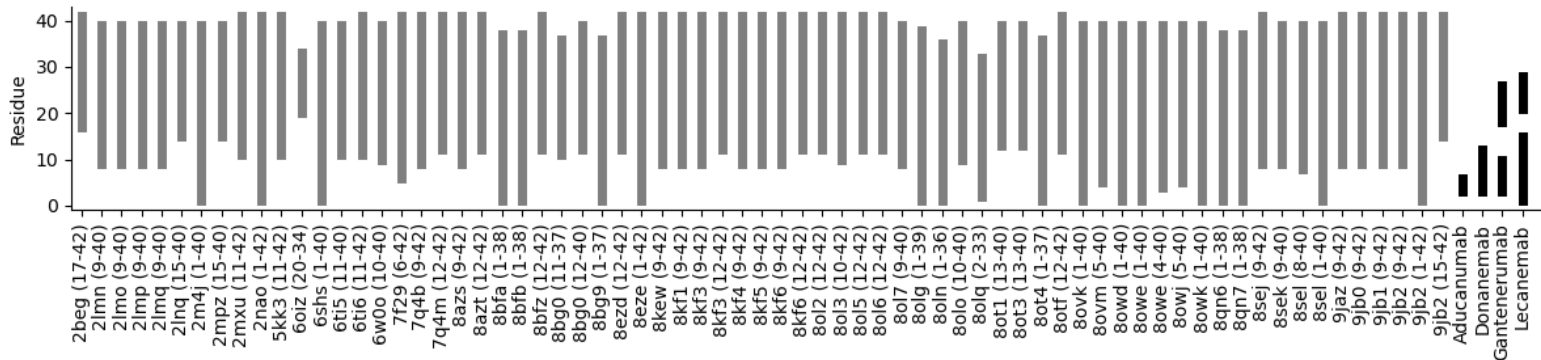
<b>8kf3 (9-42)</b>	6	4	97
<b>8kf3 (12-42)</b>	3	1	86
8kf4	6	0	54
8kf5	6	0	88
8kf6 (9-42)	6	0	81
<b>8kf6 (12-42)</b>	3	2	94
<b>8ol2</b>	10	10	96
<b>8ol3</b>	10	9	96
8ol5	10	0	91
<b>8ol6</b>	10	10	96
8ol7	10	0	83
8olg	5	0	81
8oln	10	0	87
8olo	10	0	87
8olq	5	0	71
8ot1	12	0	90
8ot3	12	0	90
8ot4	12	0	90
<b>8otf</b>	6	6	98
<b>8ovk</b>	10	10	97
<b>8ovm</b>	5	5	100
<b>8owd</b>	5	5	100
8owe (1-40)	5	0	91
<b>8owe (4-40)</b>	5	5	100
<b>8owj</b>	10	10	100
8owk	10	0	14
8qn6	2	0	77
8qn7	1	0	93
8sej	10	0	88
8sek	10	0	46
8sel (8-40)	10	0	92
<b>8sel (1-40)</b>	10	10	97
9jaz	12	0	77
9jb0	12	0	62
9jb1	12	0	27

9jb2 (9-42)	5	0	84
9jb2 (1-42)	5	0	57
9jb2 (15-42)	5	0	72

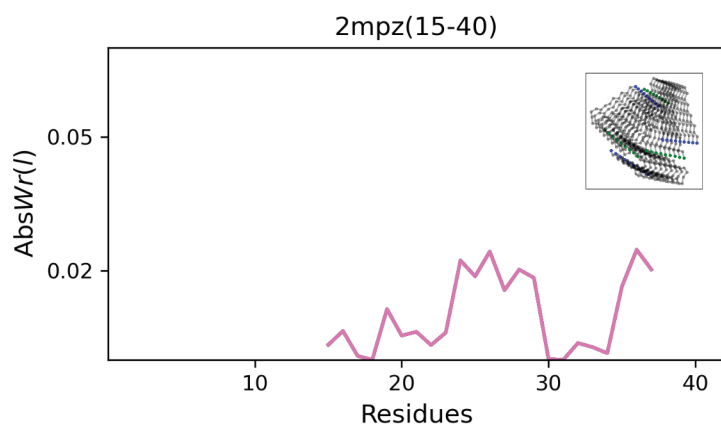
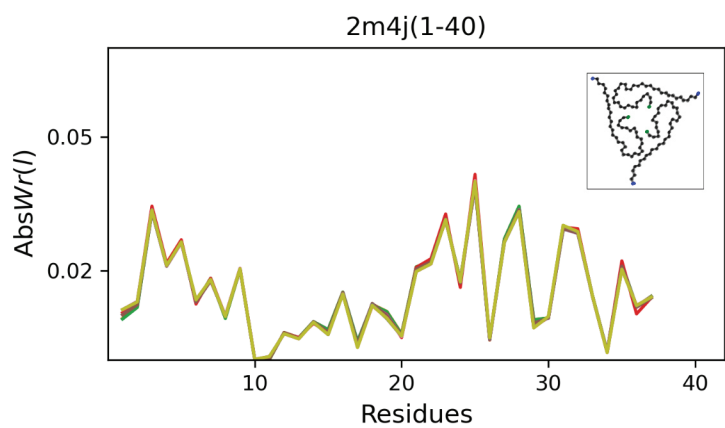
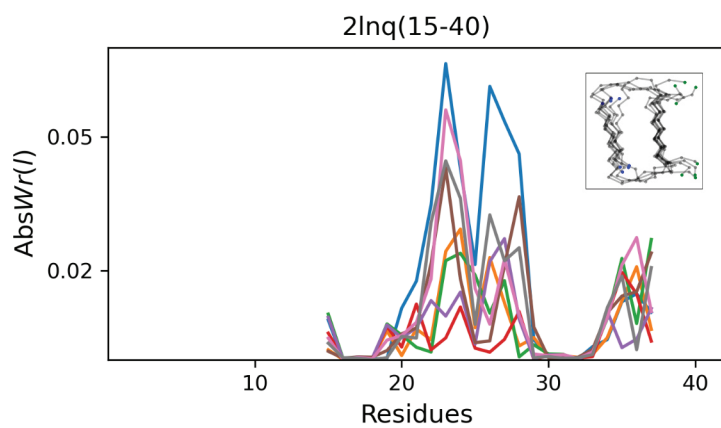
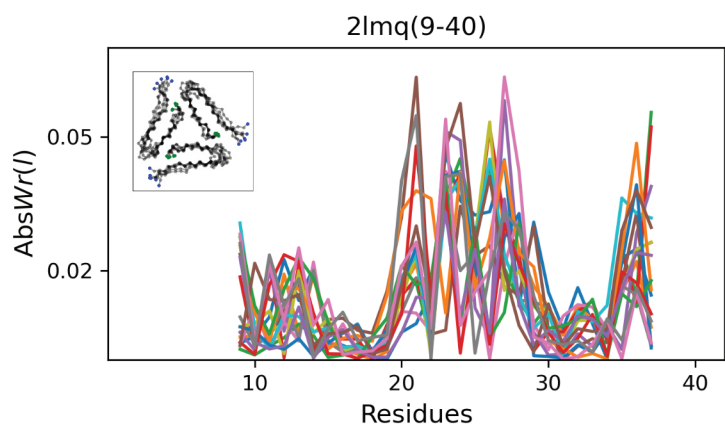
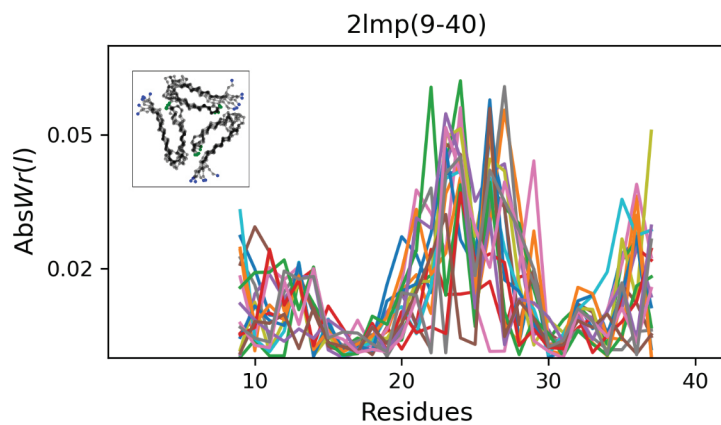
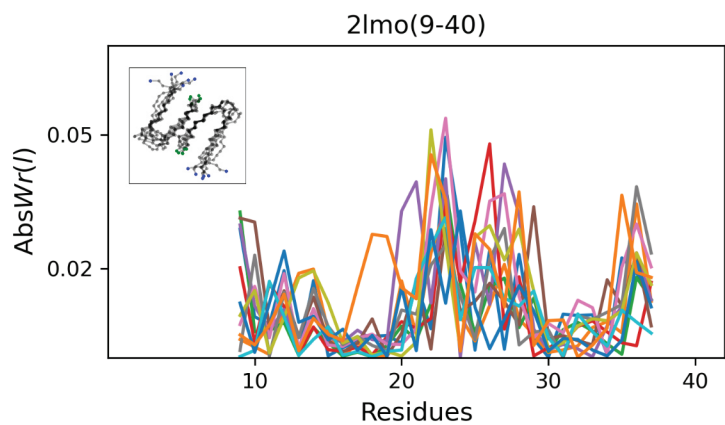
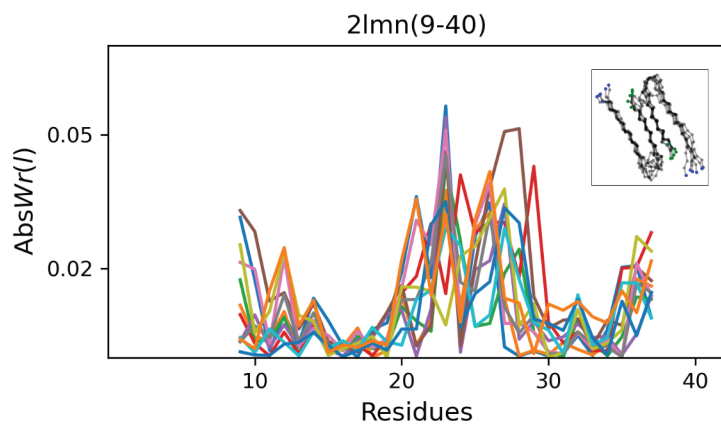
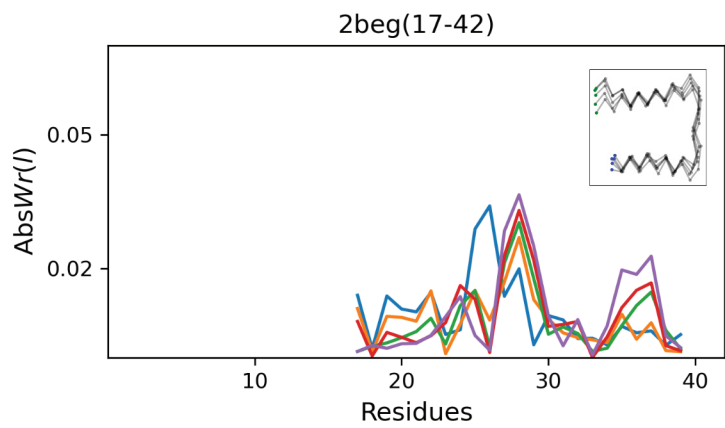
a) The PDB codes of 22 A $\beta$  fibrils that have the A $\beta$  peptides with aaWr(l)\* are marked in bold.

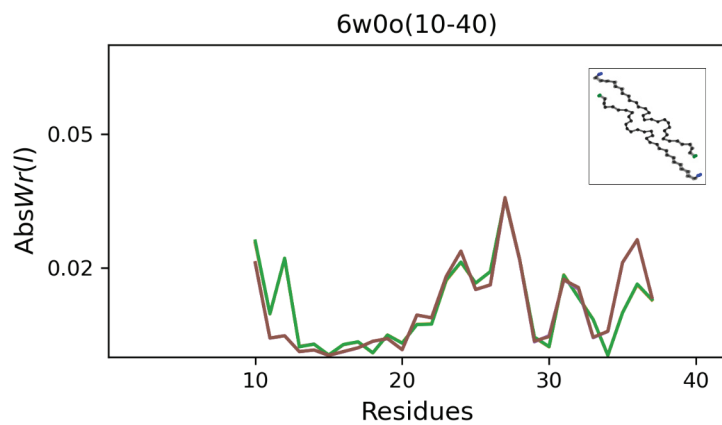
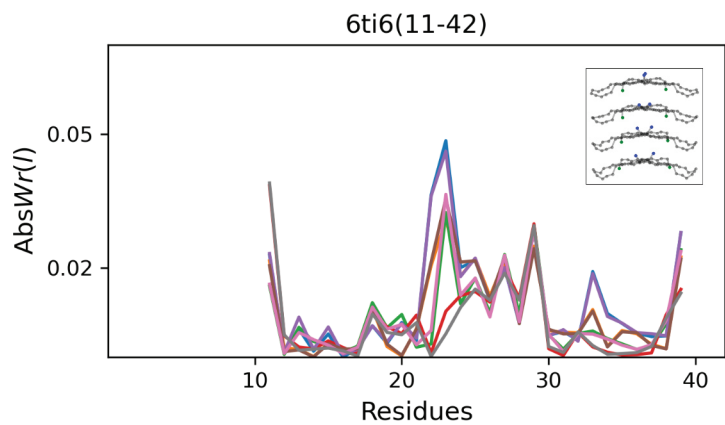
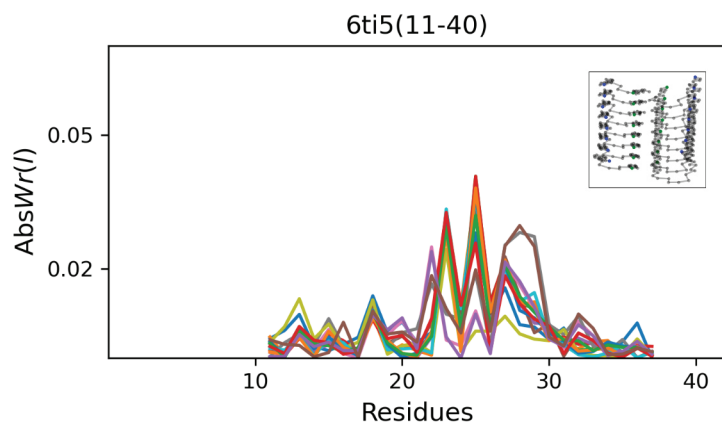
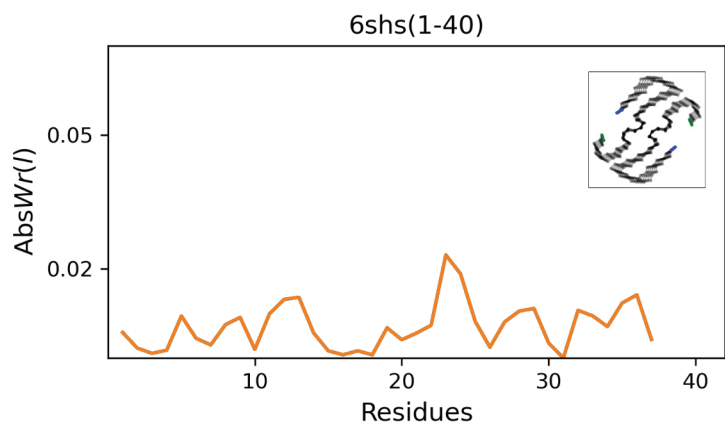
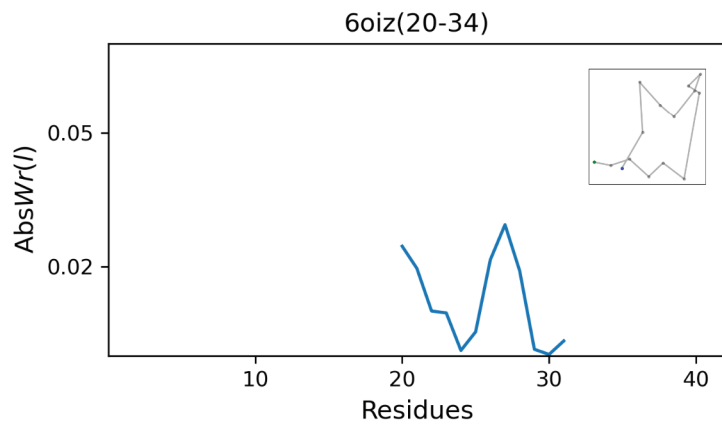
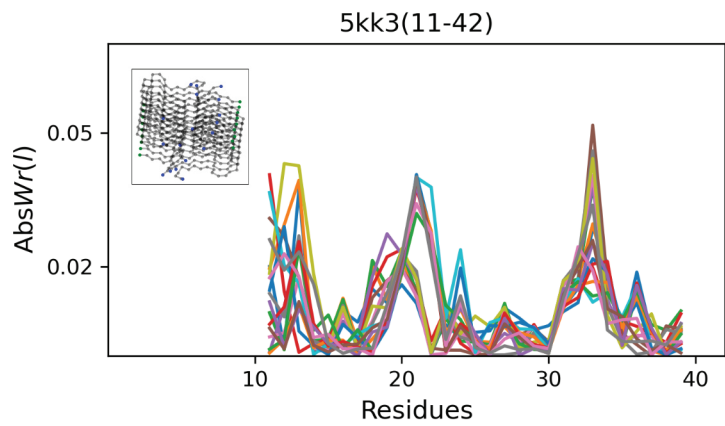
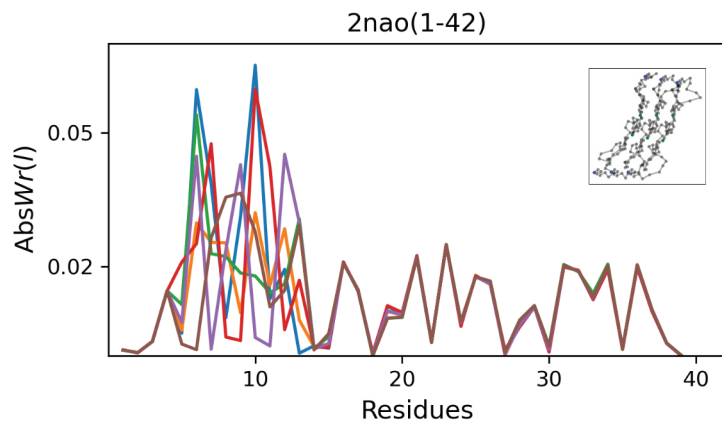
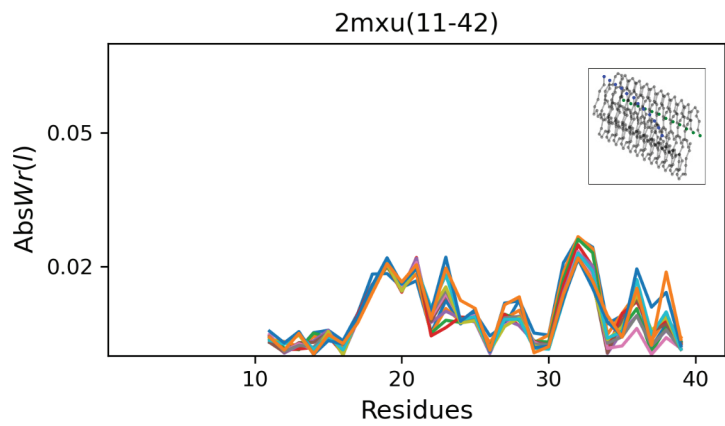
**Table S3:** A $\beta$  fibrils containing identical A $\beta$  peptide structures. Two peptides in a fibril structure are identical if their absolute writhe values differ by less than 0.001. If all their peptides are identical, A $\beta$  fibrils are considered to have identical peptide structures.

PDB code with identical peptide structures	PDB code with varied peptide structures
2mpz, 6oiz, 6shs, 7f29, 7q4b, 8azs, 8azt, 8bfa, 8bfb, 8bg0 (11-37), 8ezd, 8kew, 8kf1, 8kf4, 8kf5, 8ol2, 8ol3, 8ol5, 8ol6, 8ol7, 8olg, 8oln, 8olo, 8olq, 8ot1, 8ot3, 8ot4, 8ovk, 8ovm, 8owd, 8owe, 8owj, 8owk, 8qn7, 8sej, 8sek, 8sel, 9jaz, 9jb0, 9jb1	2beg, 2lmn, 2lmo, 2lmp, 2lmq, 2lnq, 2m4j, 2mxu, 2nao, 5kk3, 6ti5, 6ti6, 6w0o, 7q4m, 8bfz, 8bg0 (12-40), 8bg9, 8eze, 8kf3, 8kf6, 8otf, 8qn6, 9bj2

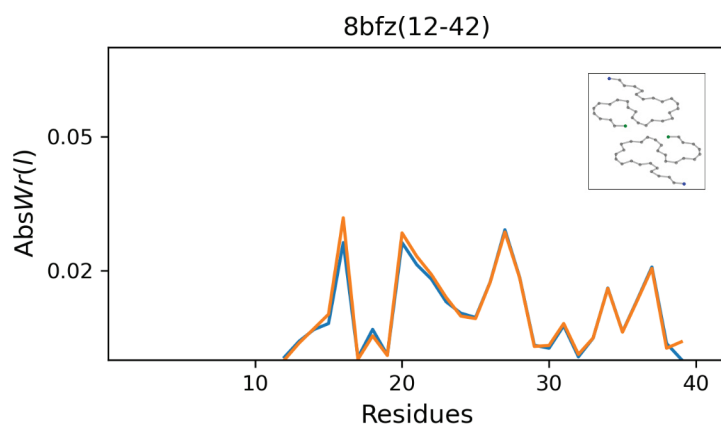
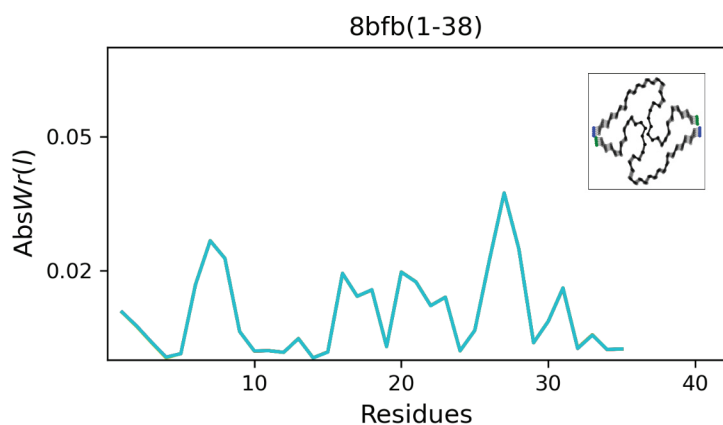
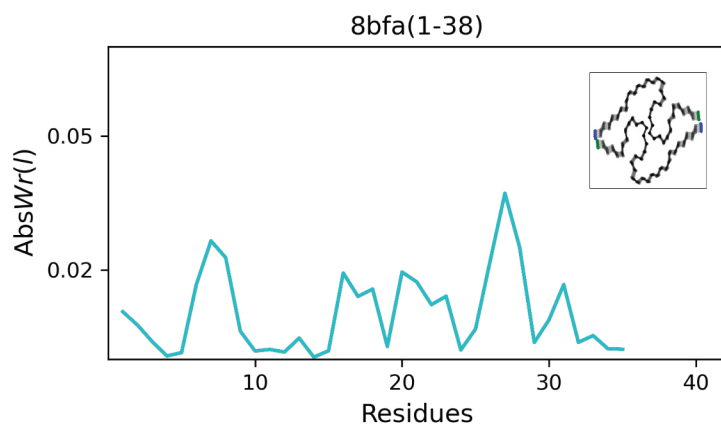
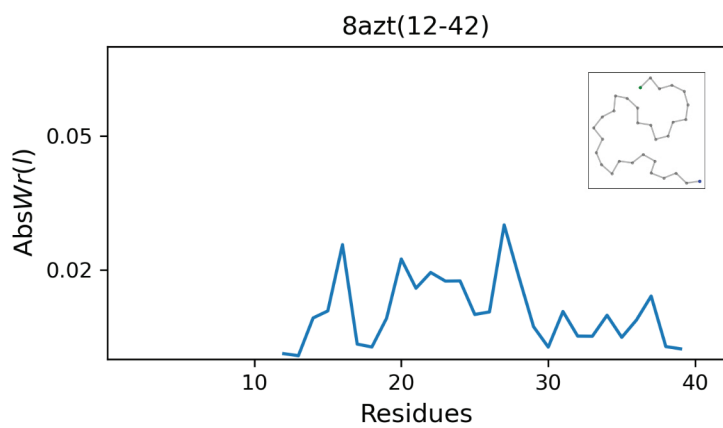
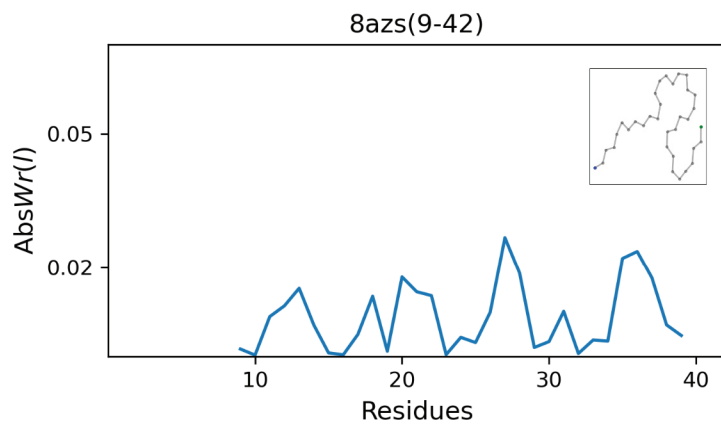
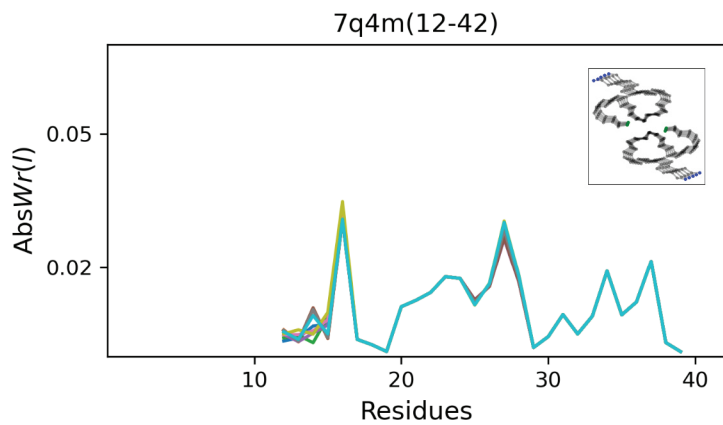
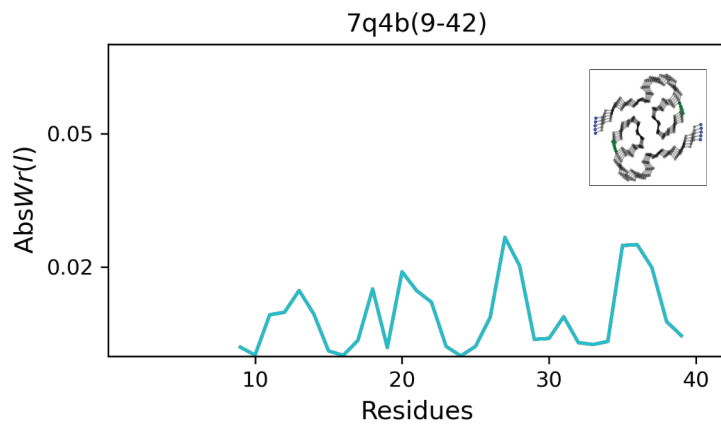
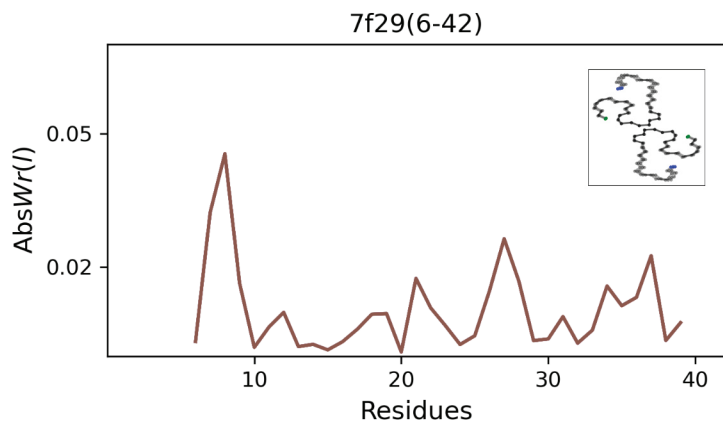


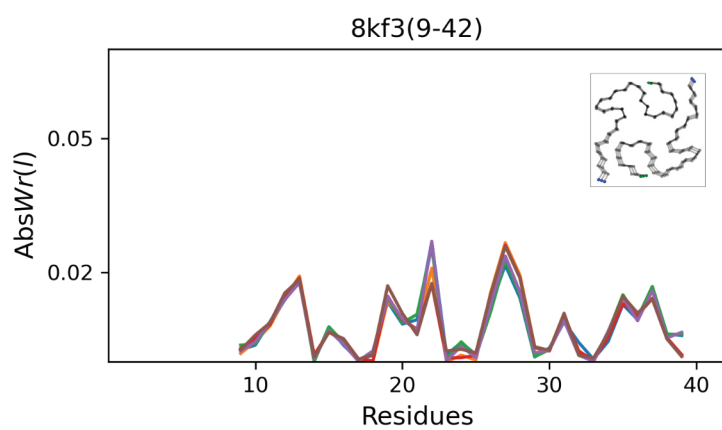
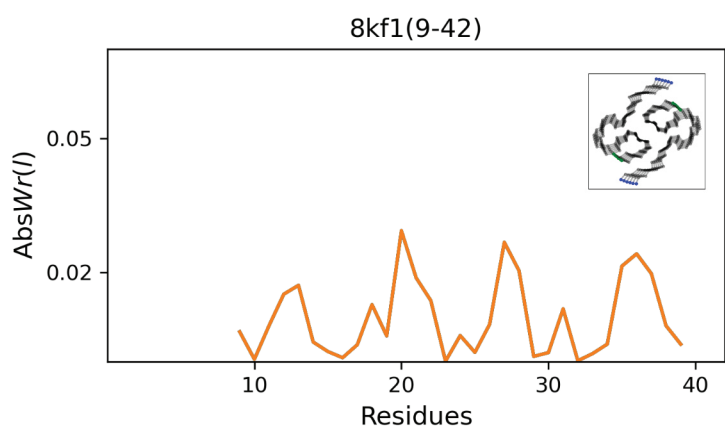
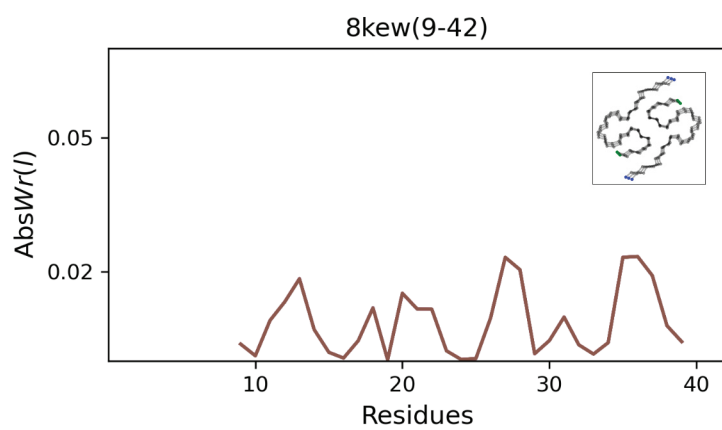
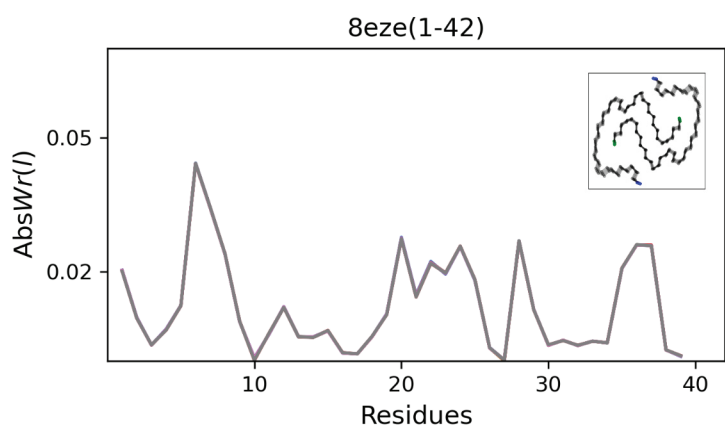
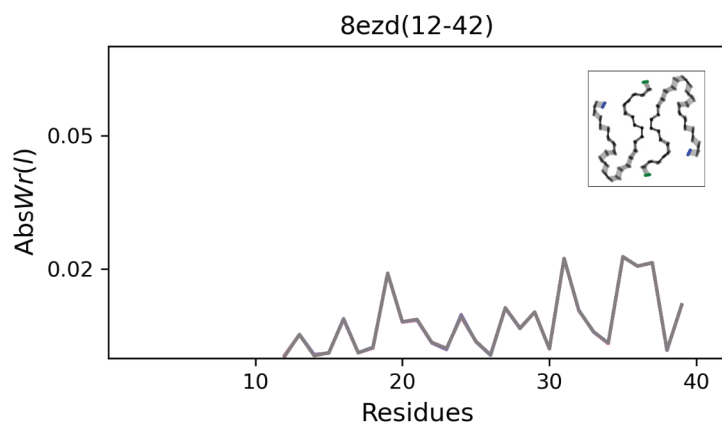
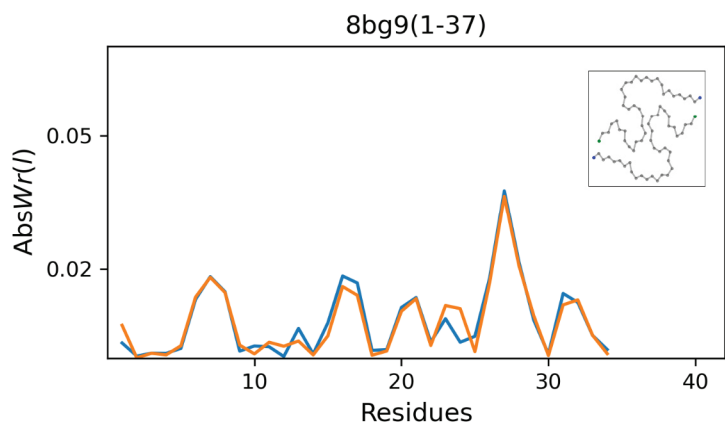
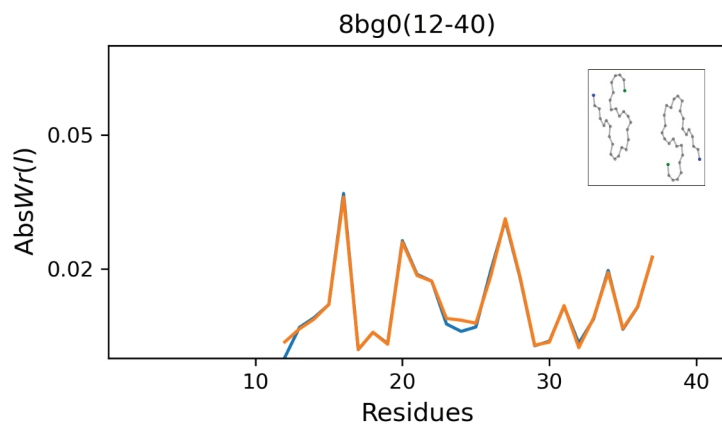
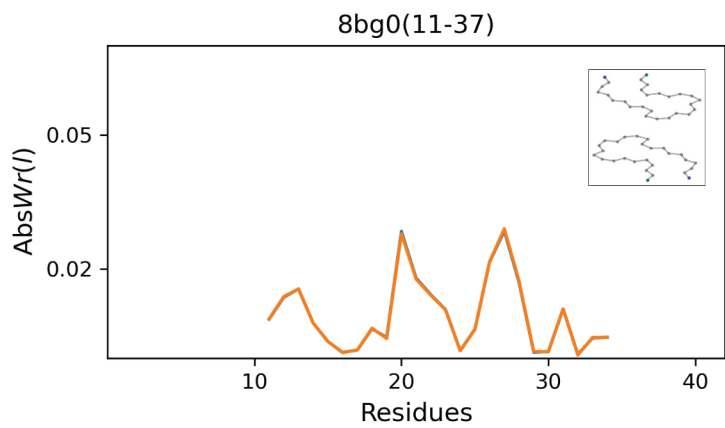
**Figure S1:** The Aβ residues in 69 different fibrils (gray bars) with regions of the epitopes targeted by the four representative second-generation mAbs (black bars). Each fibril is denoted by its PDB accession code and the residues of Aβ in the structure.

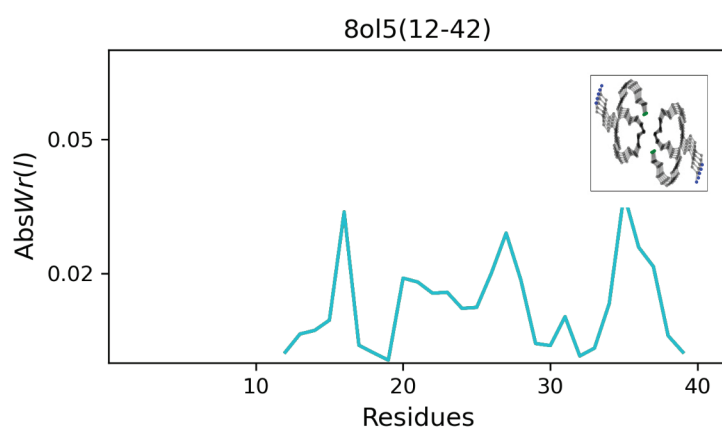
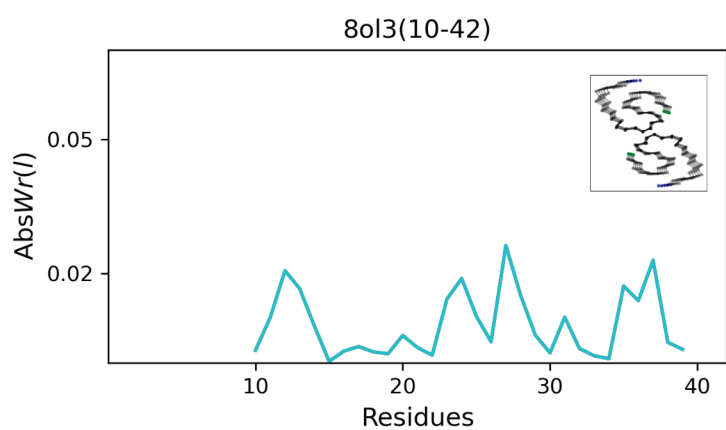
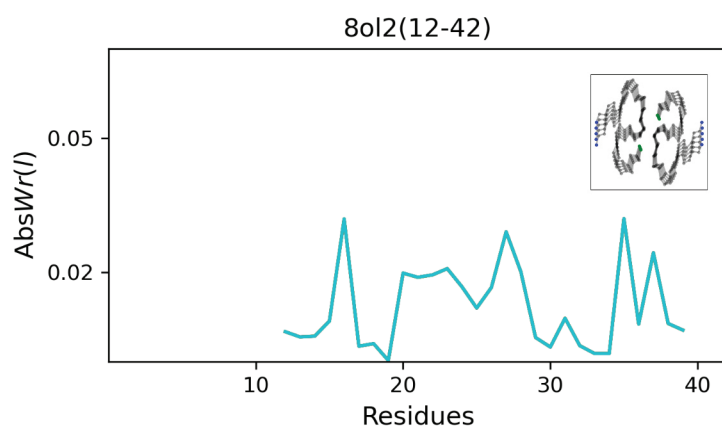
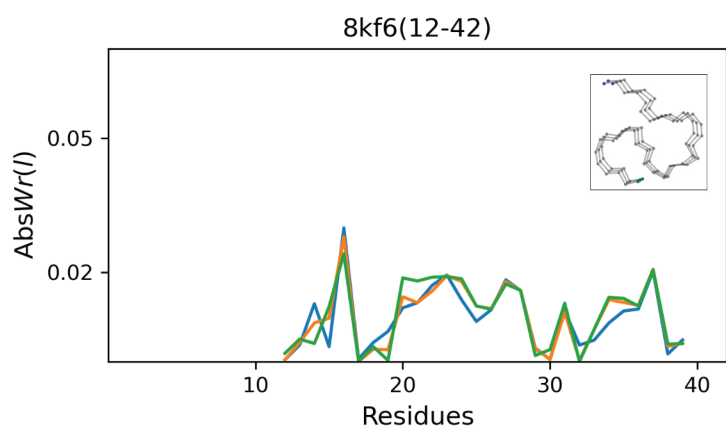
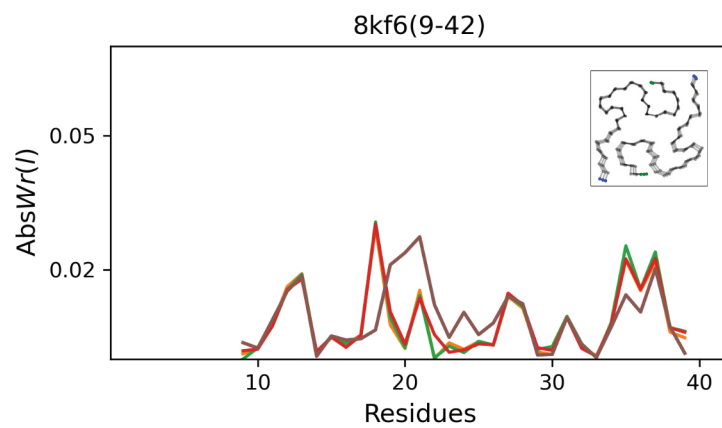
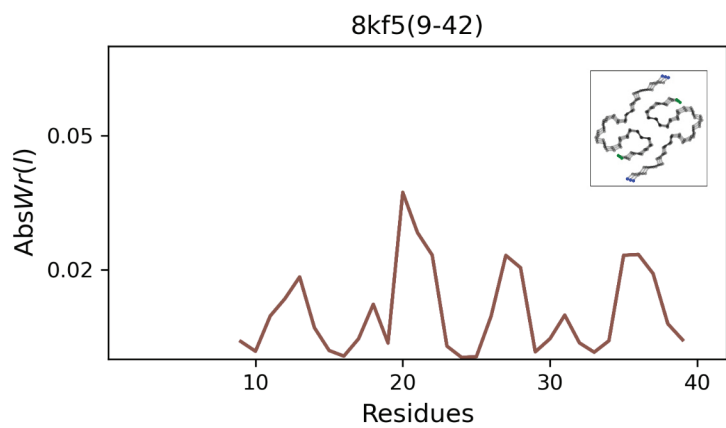
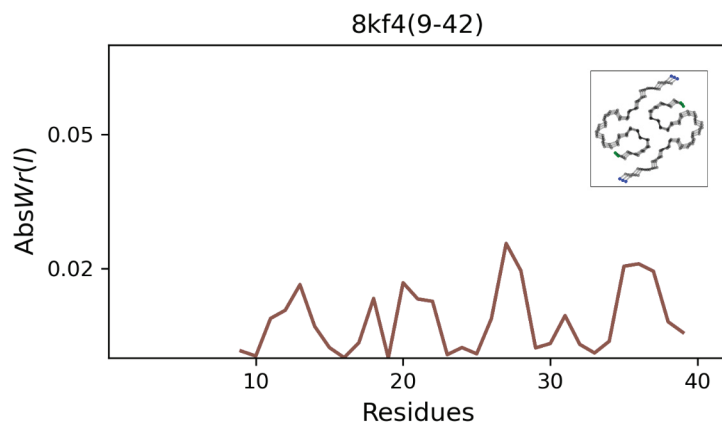
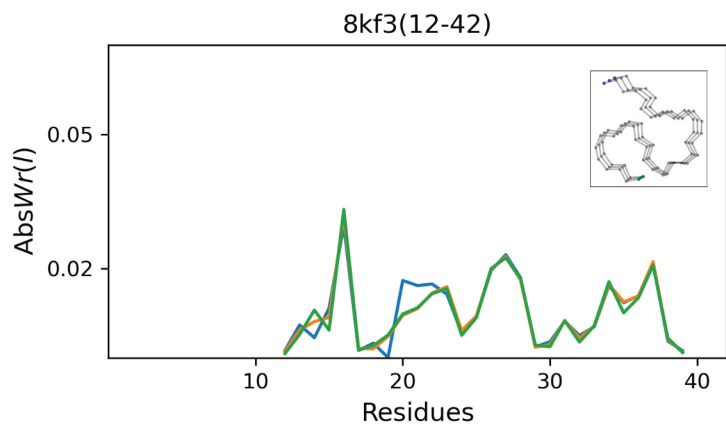


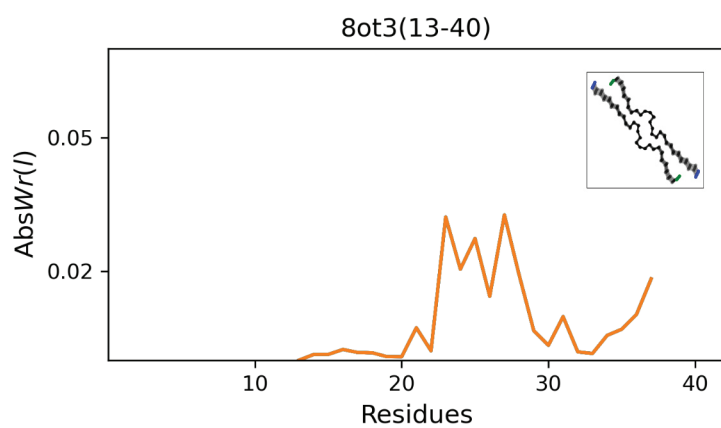
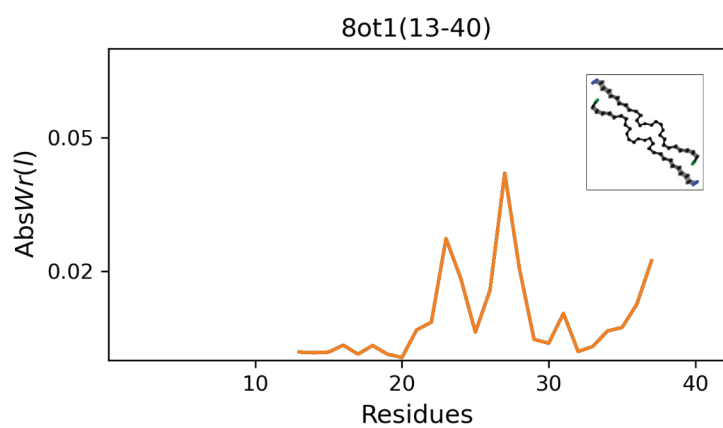
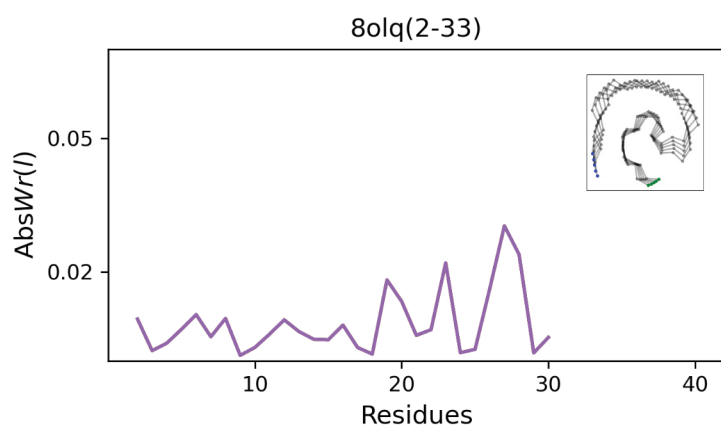
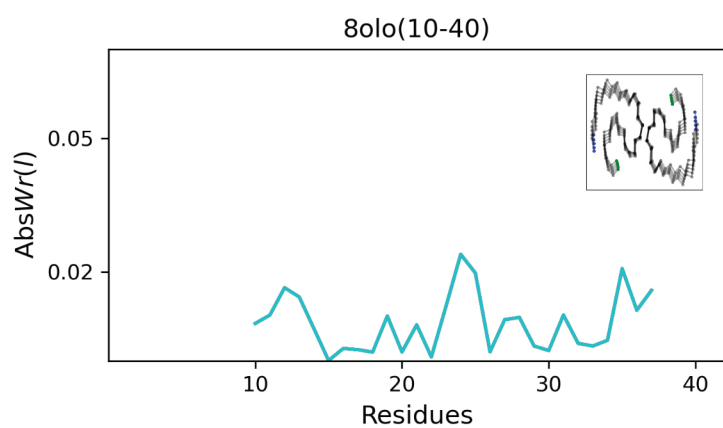
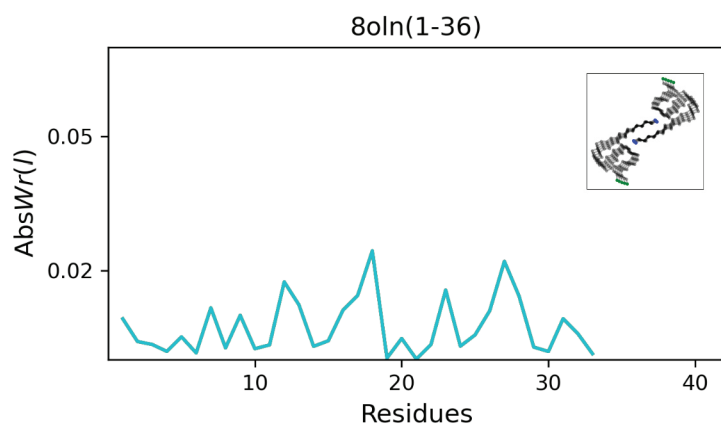
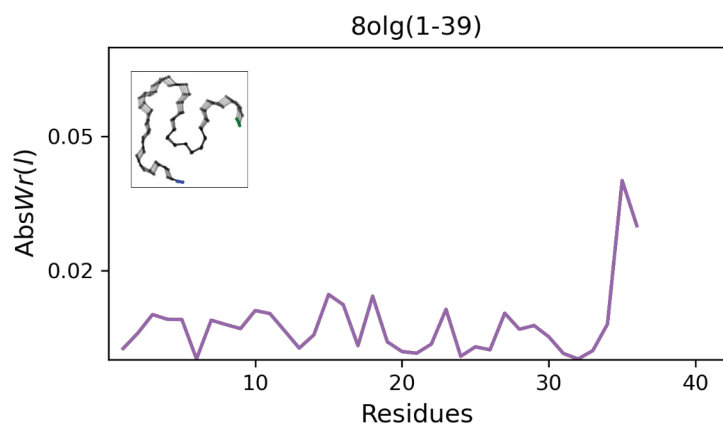
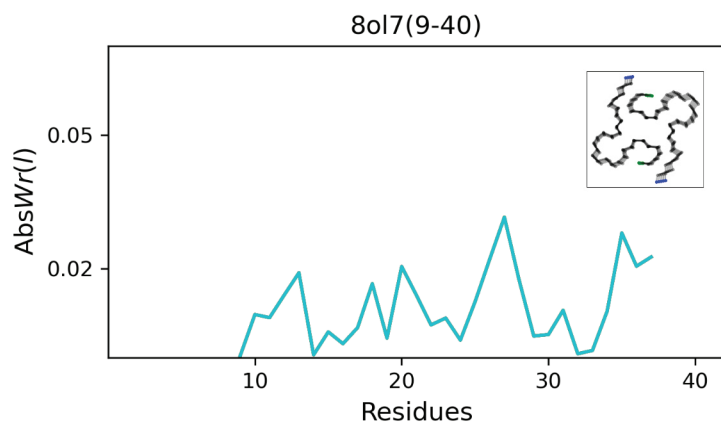
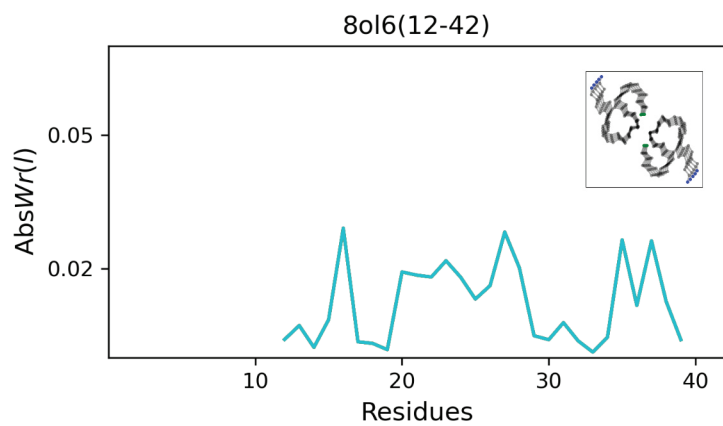


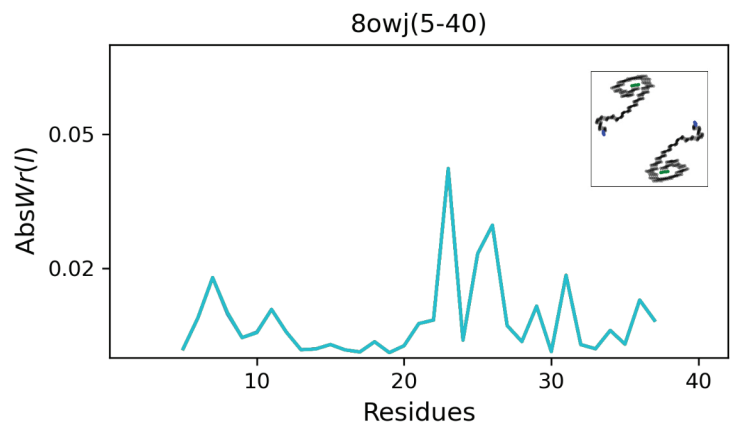
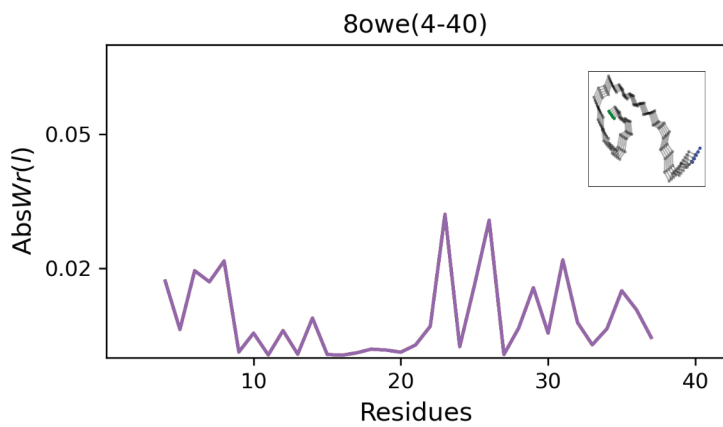
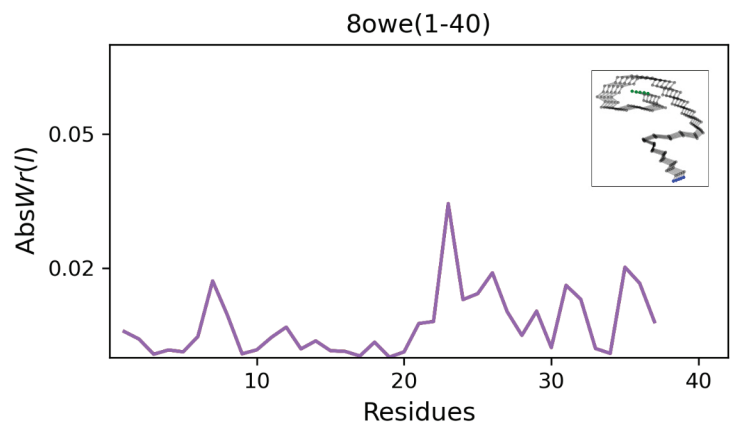
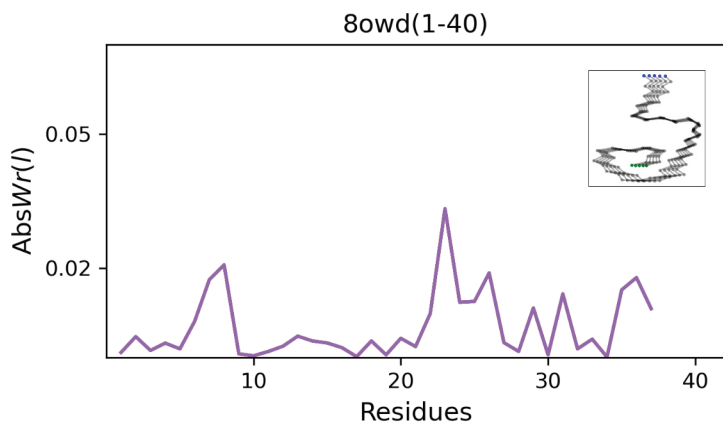
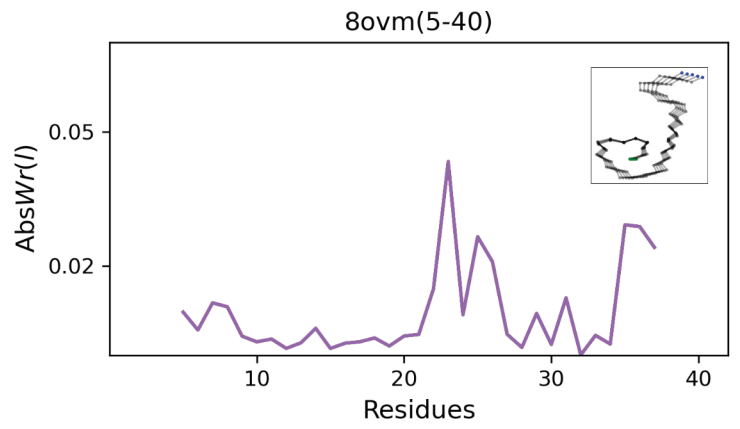
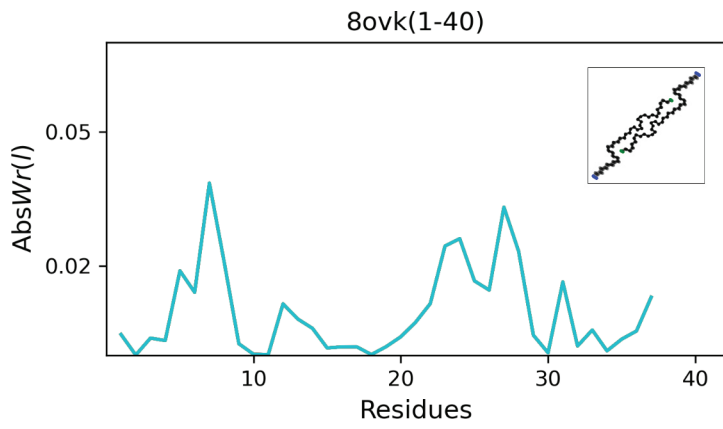
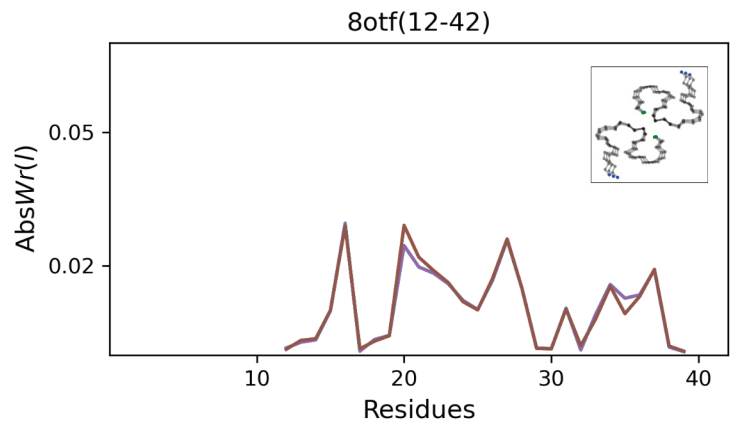
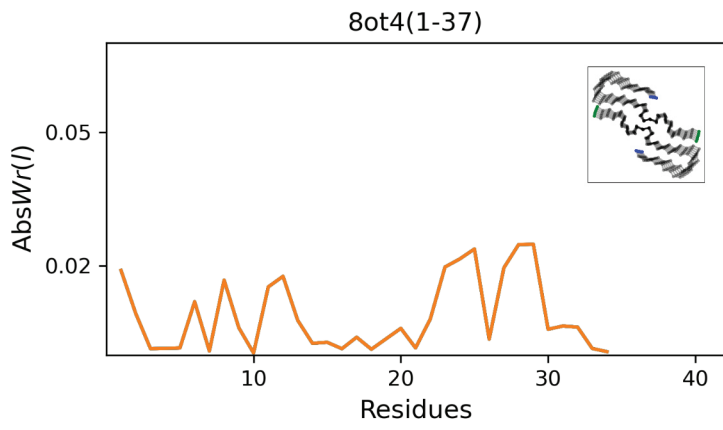
Supplementary Figure S2

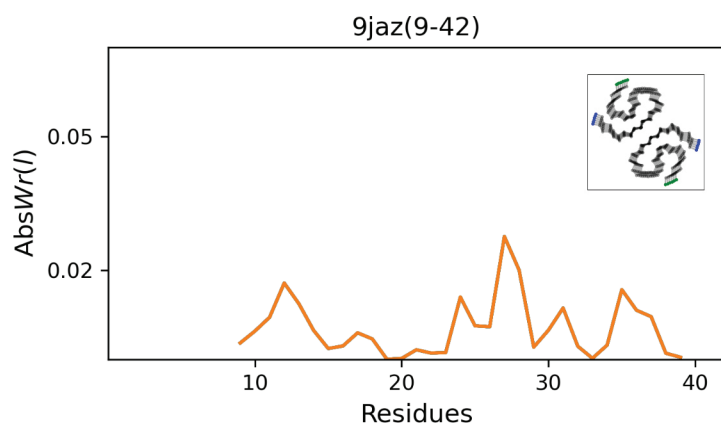
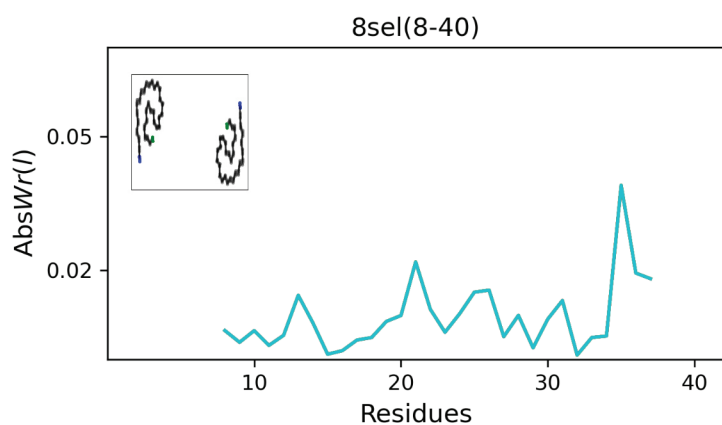
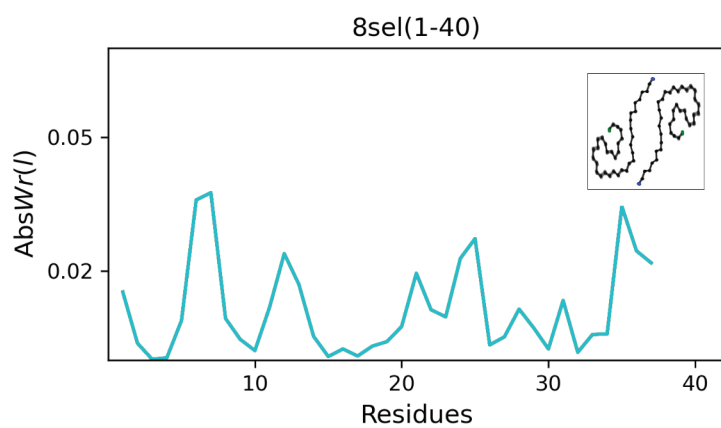
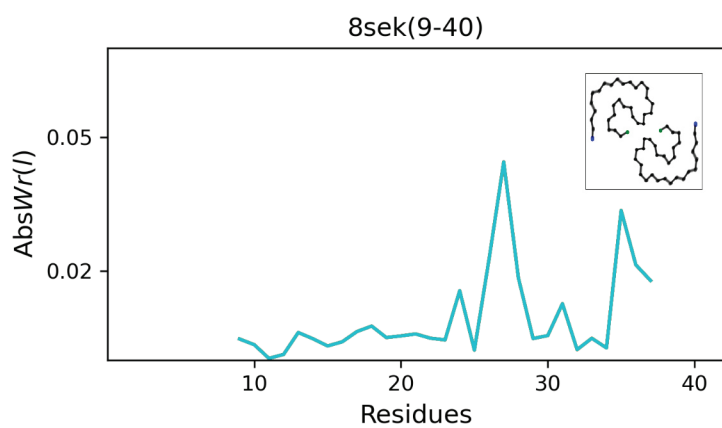
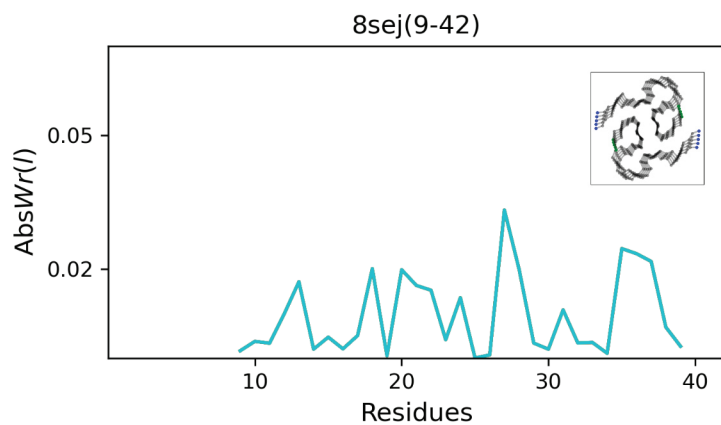
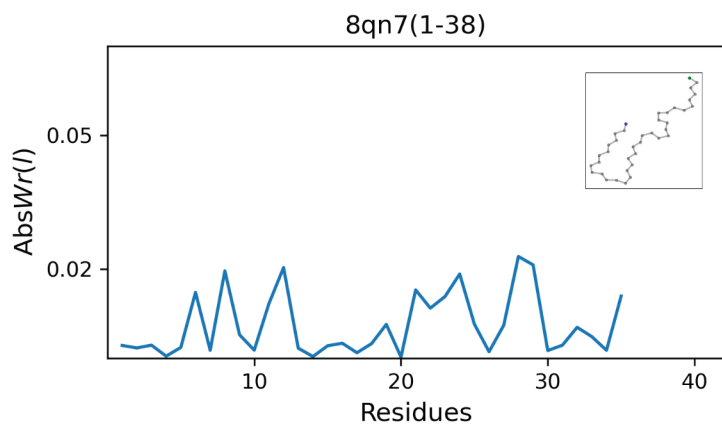
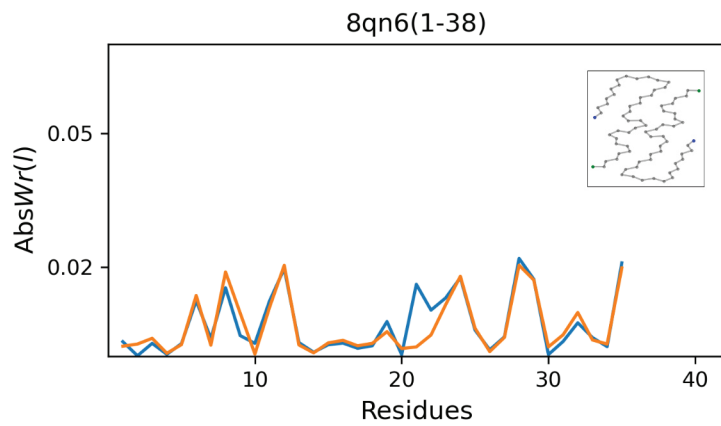
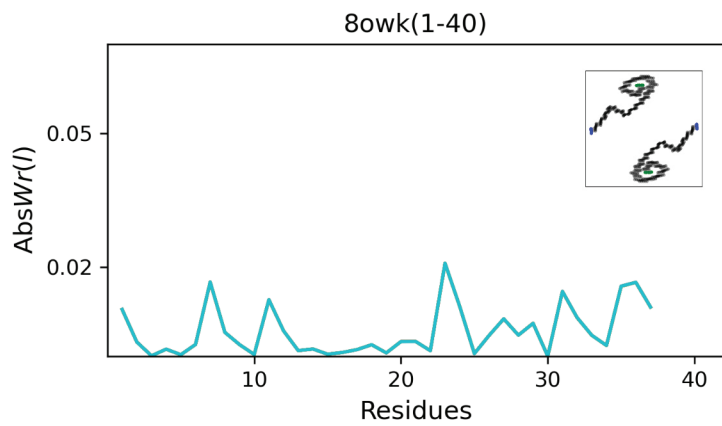




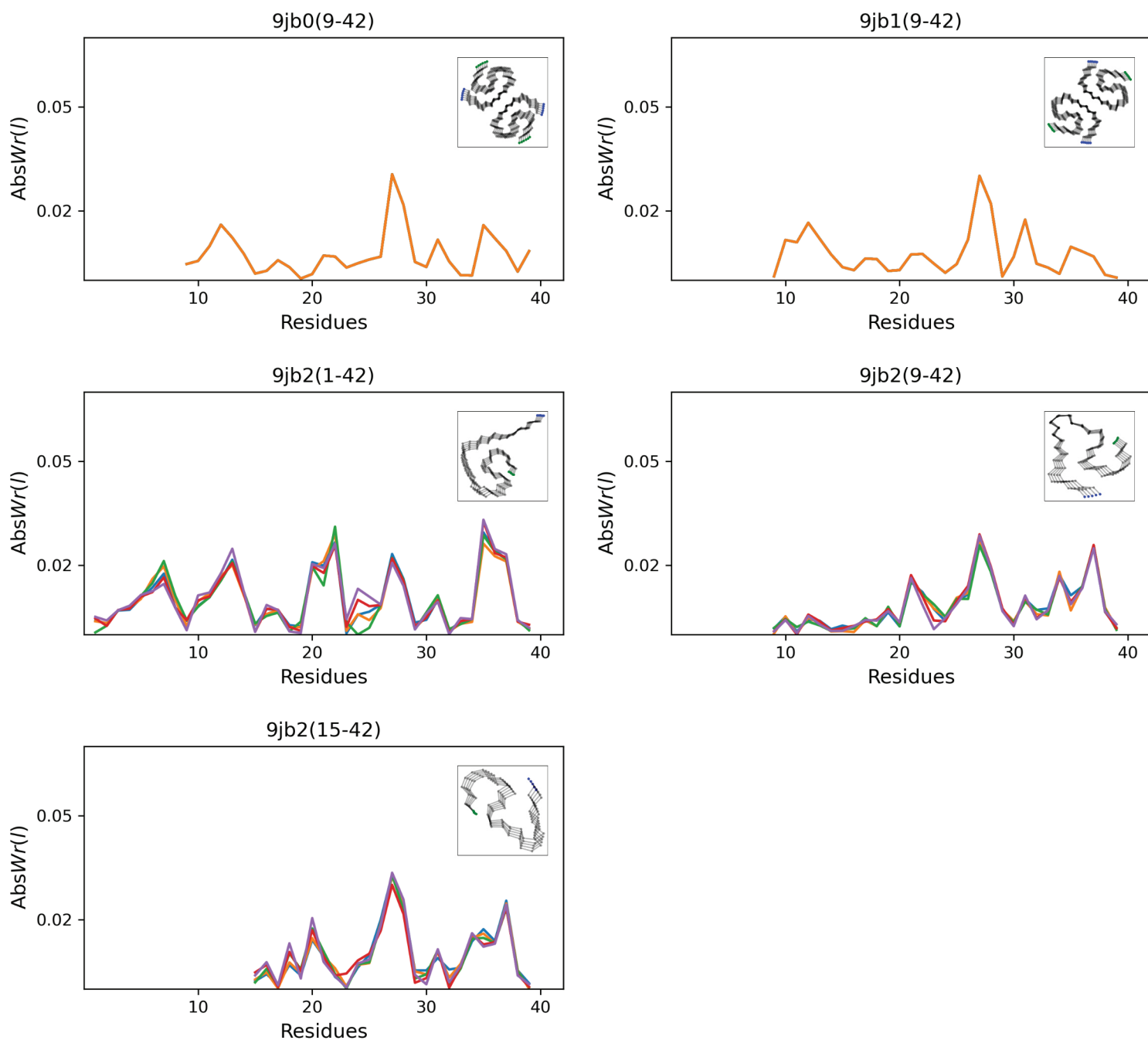




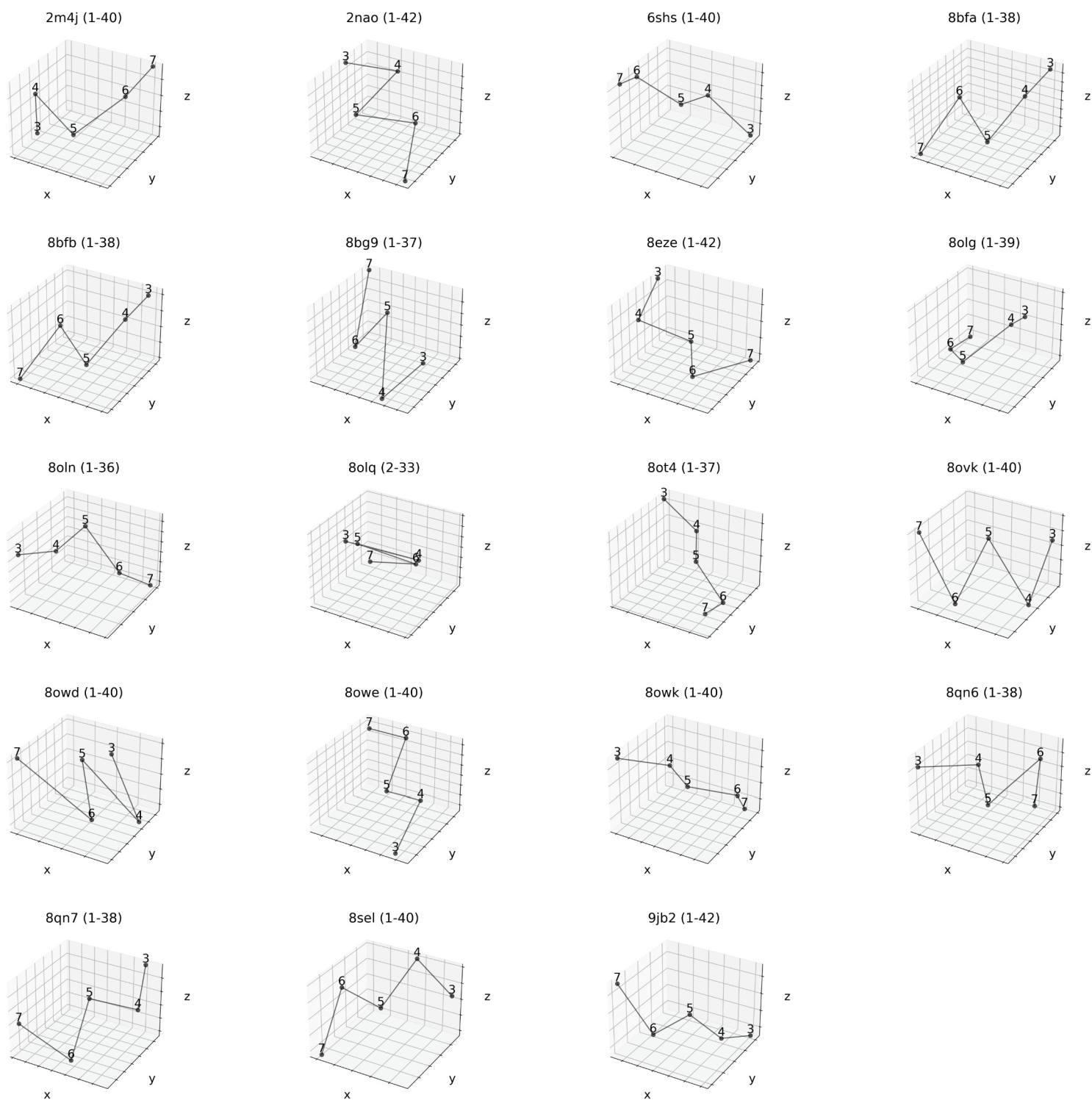




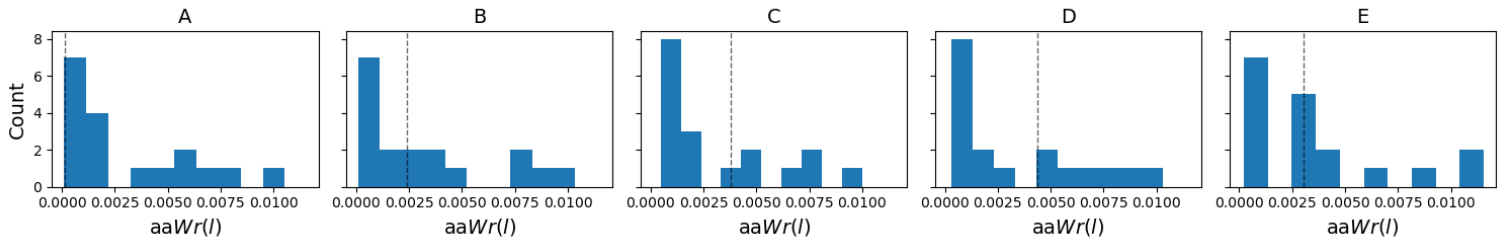
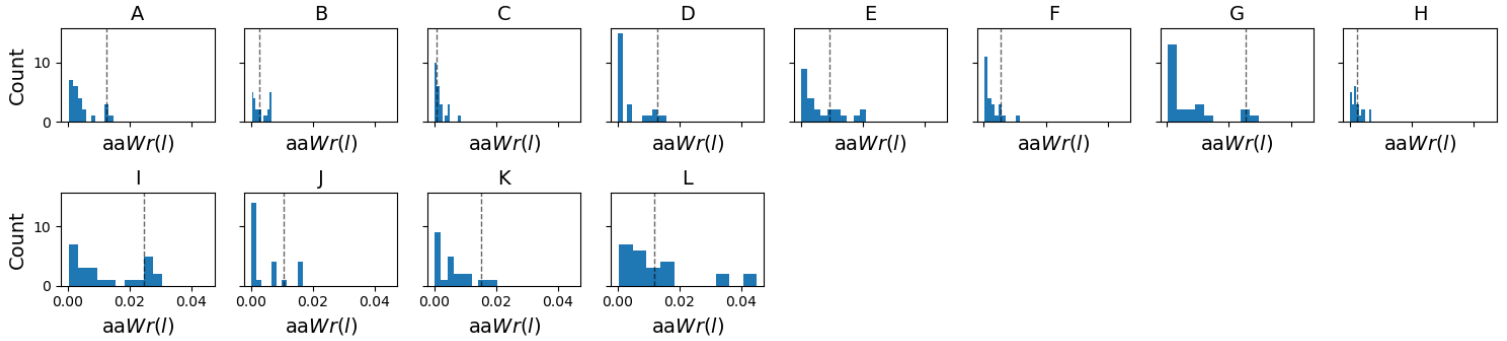
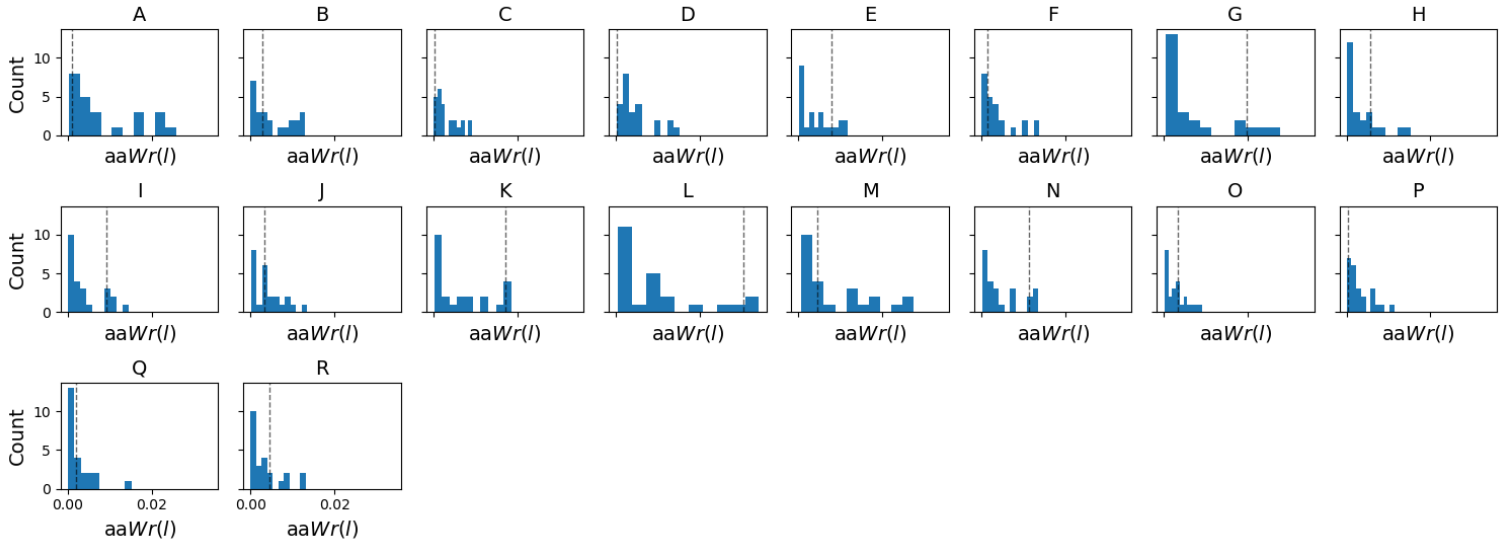
Supplementary Figure S2



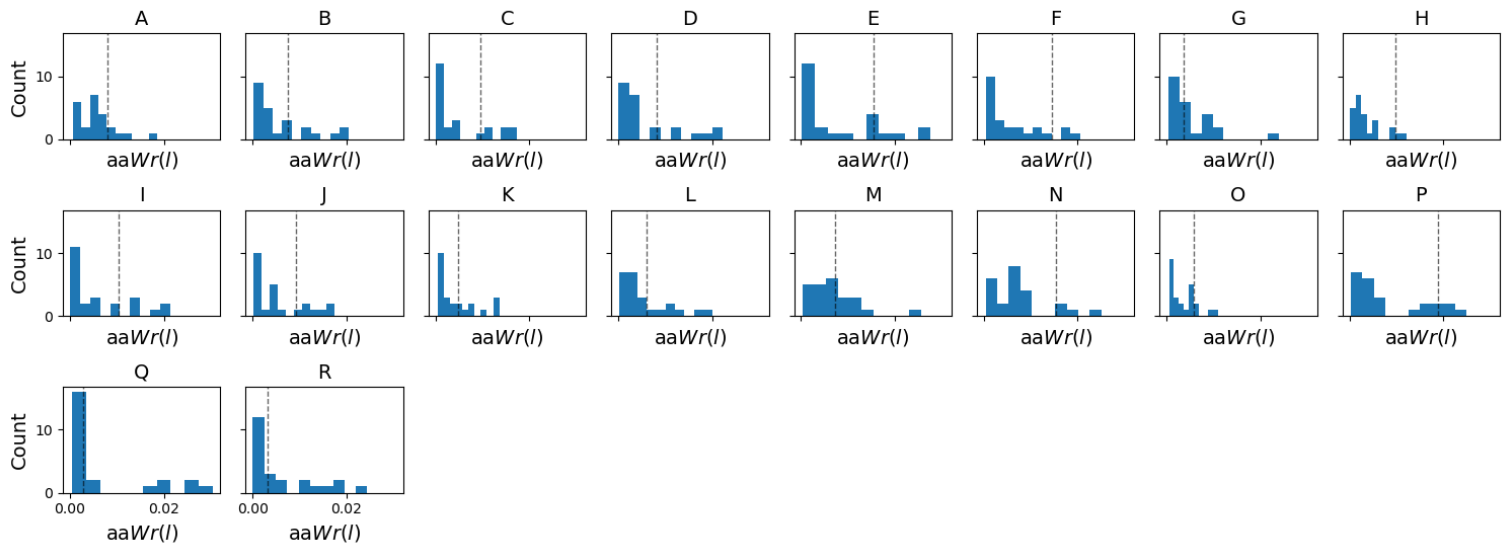
**Figure S2:** The distribution of the absolute local writhe number,  $\text{absWr}(l)$ , along the residues for all the A $\beta$  peptides in 69 fibrils with the corresponding A $\beta$  structures (inset). Data for each Ab peptide in a fibril are drawn in different colors. In the structures, blue and green dots are corresponding to the N- and C-terminal residues, respectively.



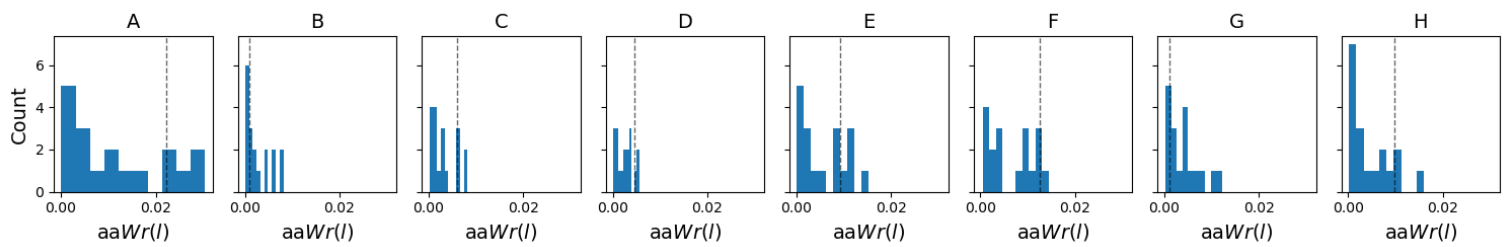
**Figure S3:** Geometries of the epitope by aducanumab (3-7) in 19 different fibrils. The Ab peptides of fibrils are represented as polygonal curves, and black vertices indicate the amino acid residues with the residue numbers.

**a****2beg (17-42): Lecanemab (21-29) epitope****2lmo (9-40): Lecanemab (21-29) epitope****2lmp (9-40): Lecanemab (21-29) epitope**

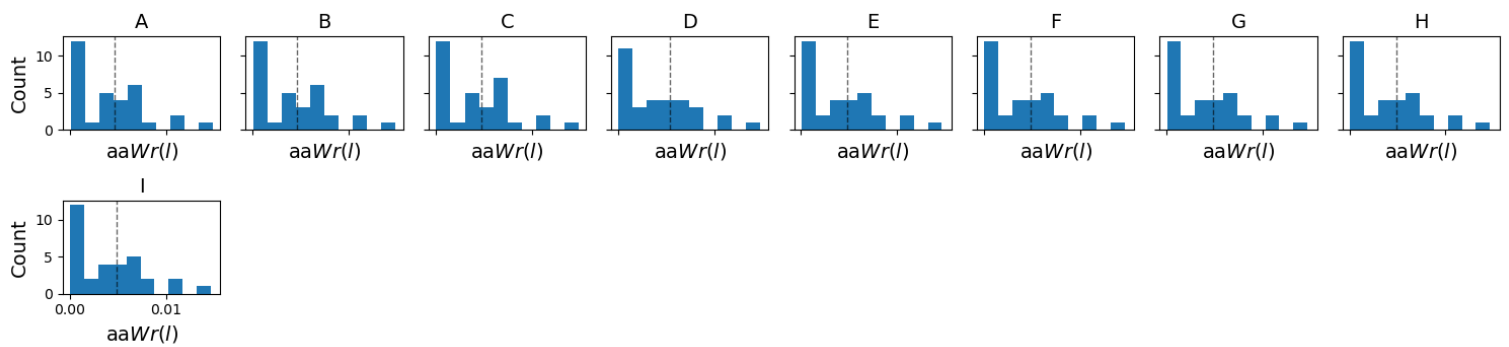
### 2Imq (9-40): Lecanemab (21-29) epitope



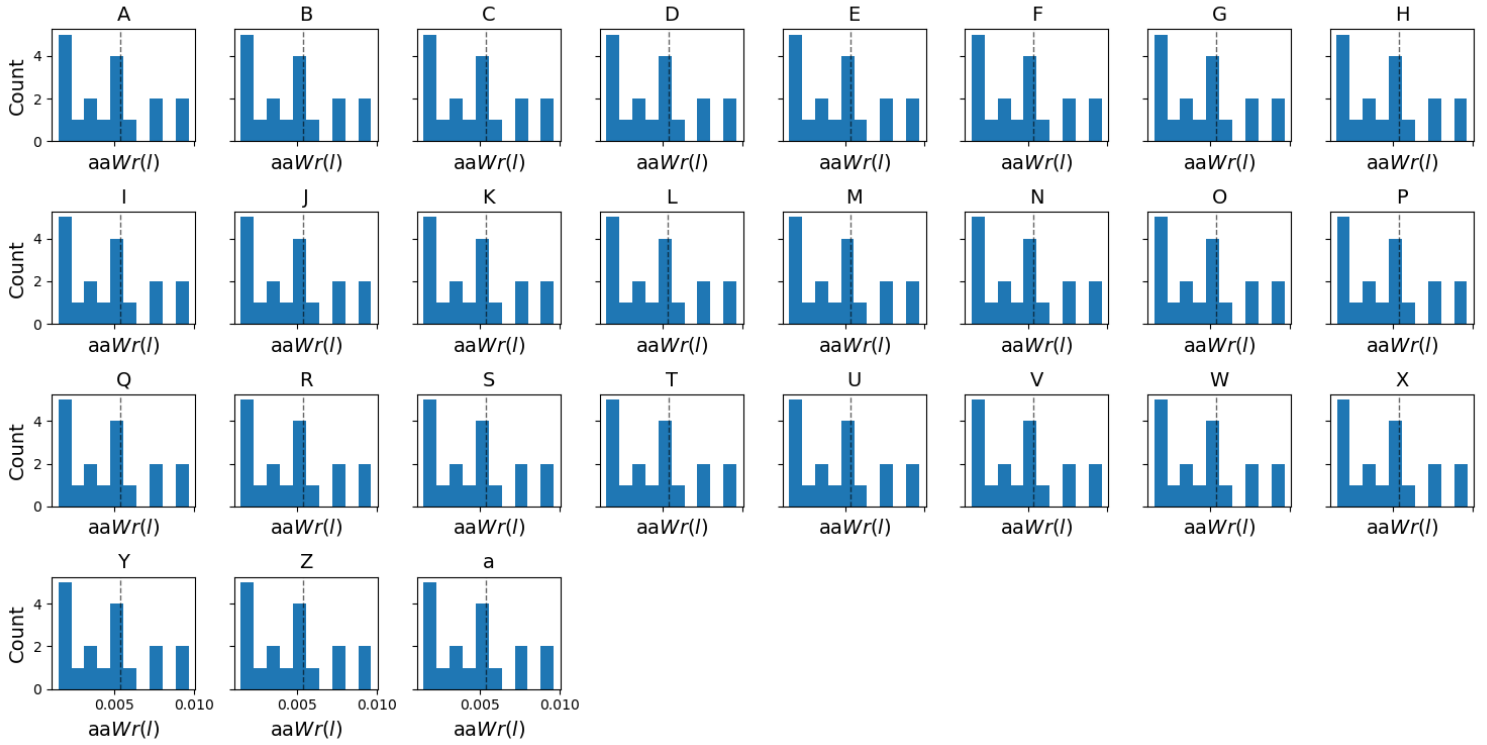
### 2Inq (15-40): Lecanemab (21-29) epitope



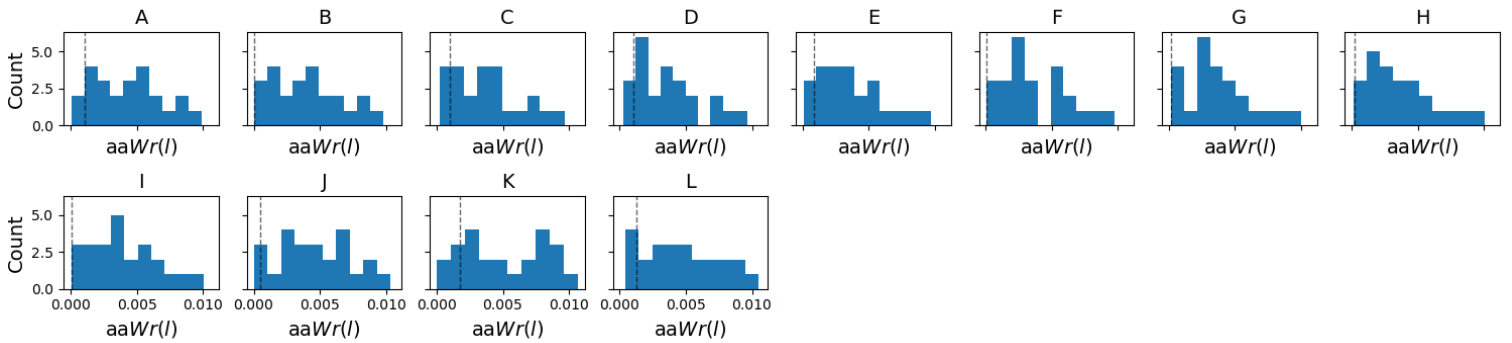
### 2m4j (1-40): Lecanemab (21-29) epitope



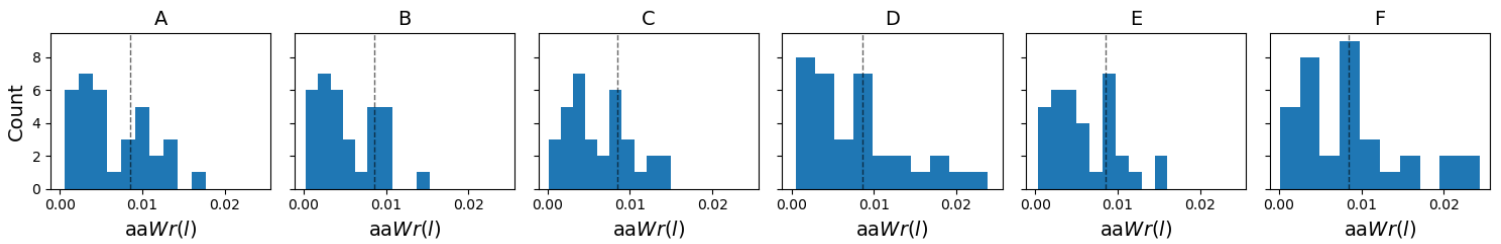
2mpz (15-40): Lecanemab (21-29) epitope



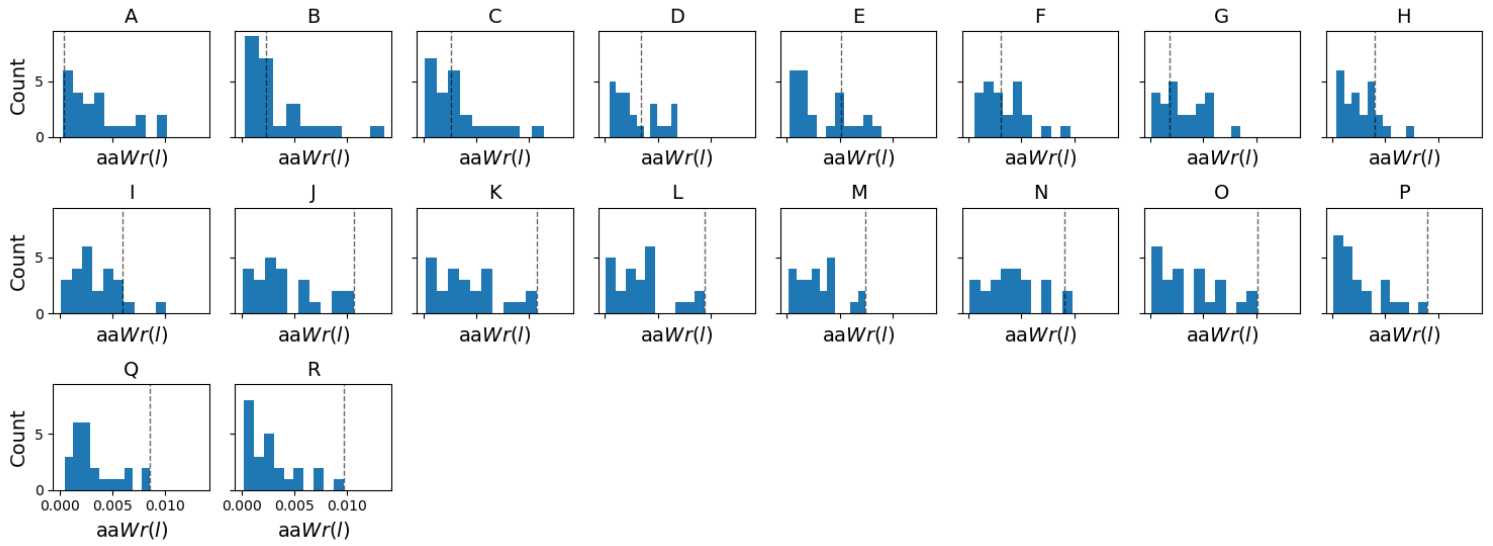
2mxu (11-42): Lecanemab (21-29) epitope



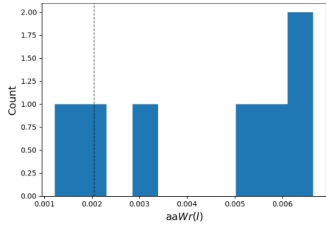
2nao (1-42): Lecanemab (21-29) epitope



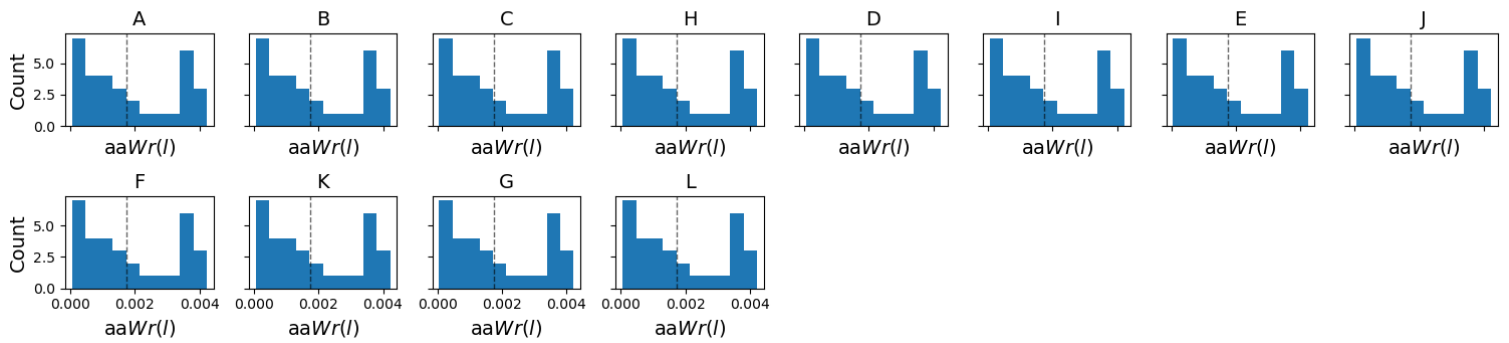
5kk3 (11-42): Lecanemab (21-29) epitope



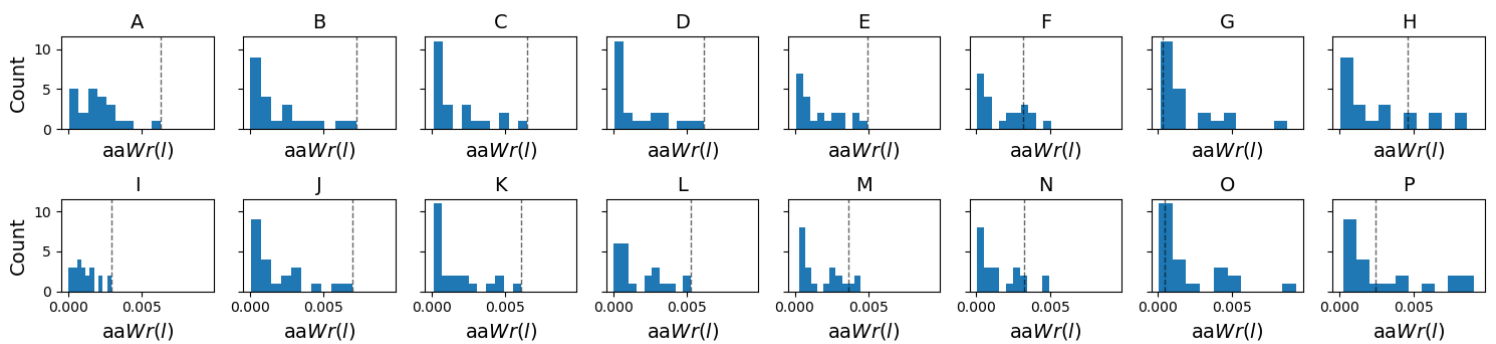
6oiz (20-34): lecanemab (21-29) epitope



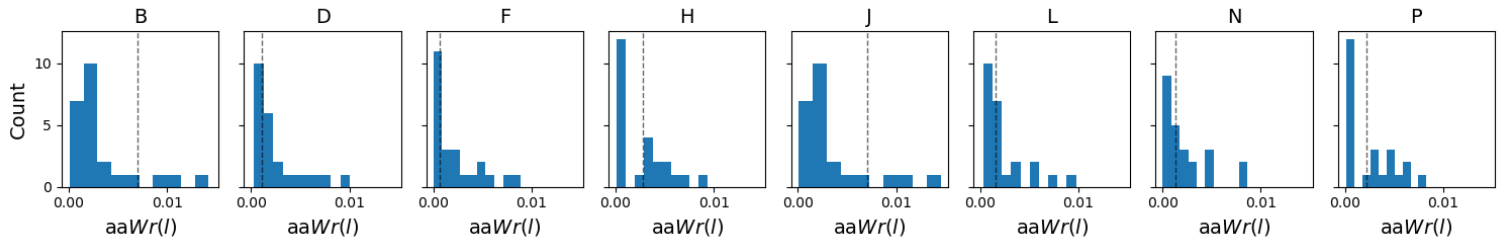
6shs (1-40): Lecanemab (21-29) epitope



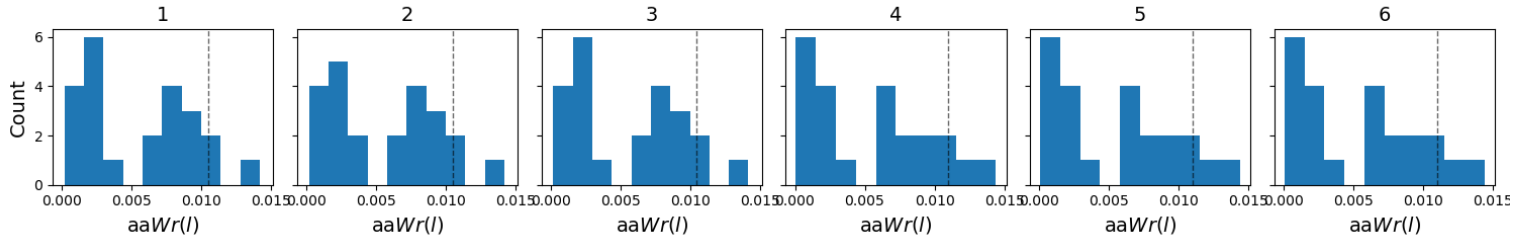
6ti5 (11-40): Lecanemab (21-29) epitope



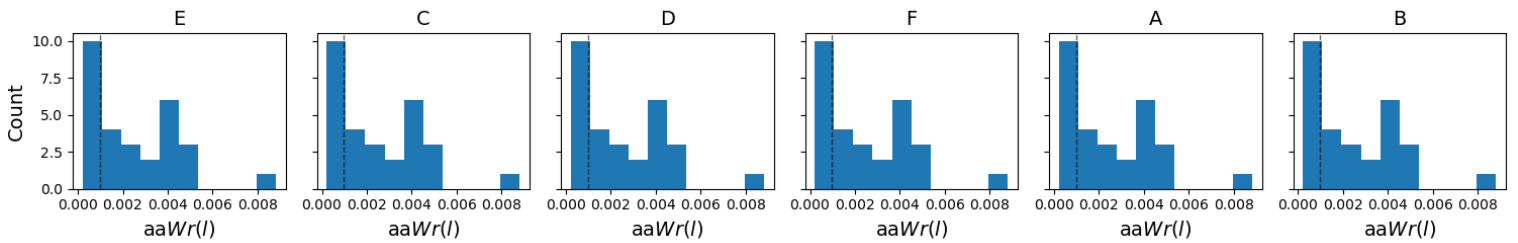
6ti6 (11-42): Lecanemab (21-29) epitope



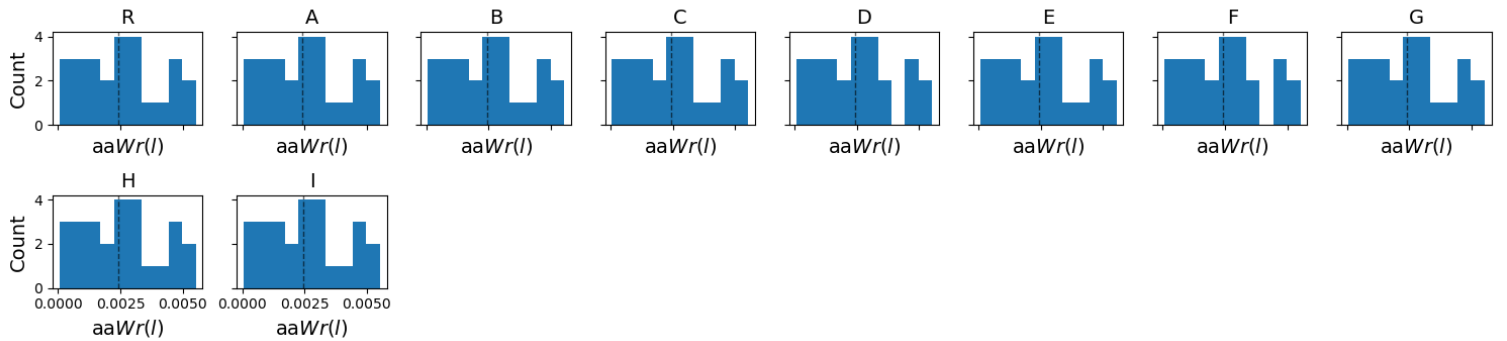
6w0o (10-40): Lecanemab (21-29) epitope



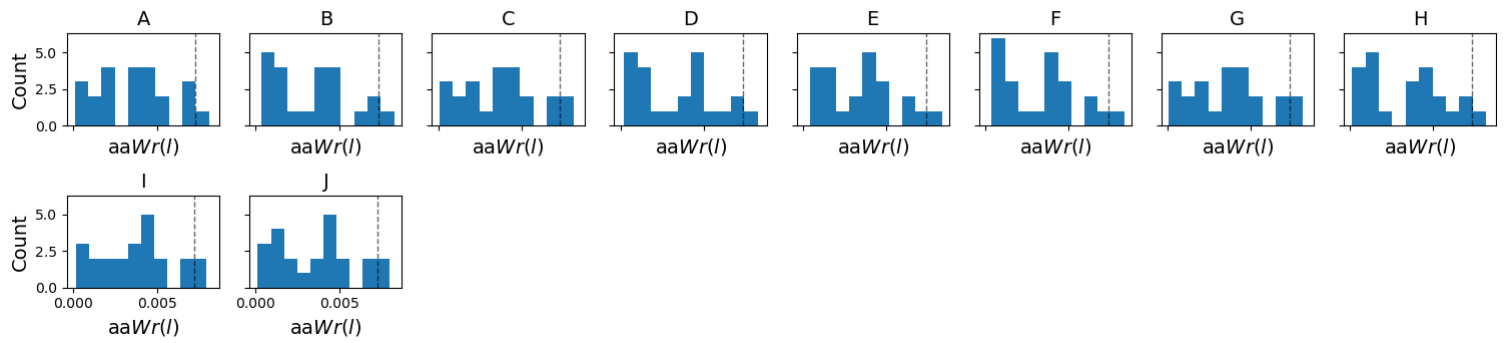
7f29 (6-42): Lecanemab (21-29) epitope



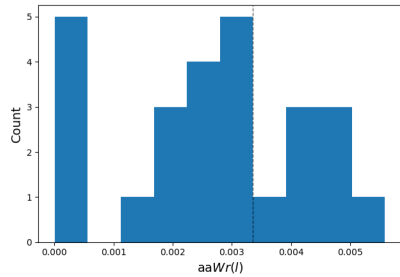
7q4b (9-42): Lecanemab (21-29) epitope



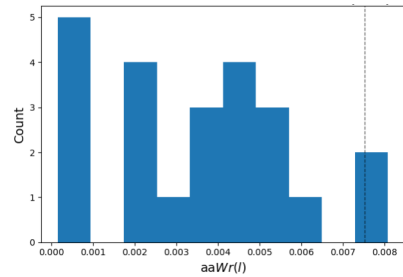
### 7q4m (12-42): Lecanemab (21-29) epitope



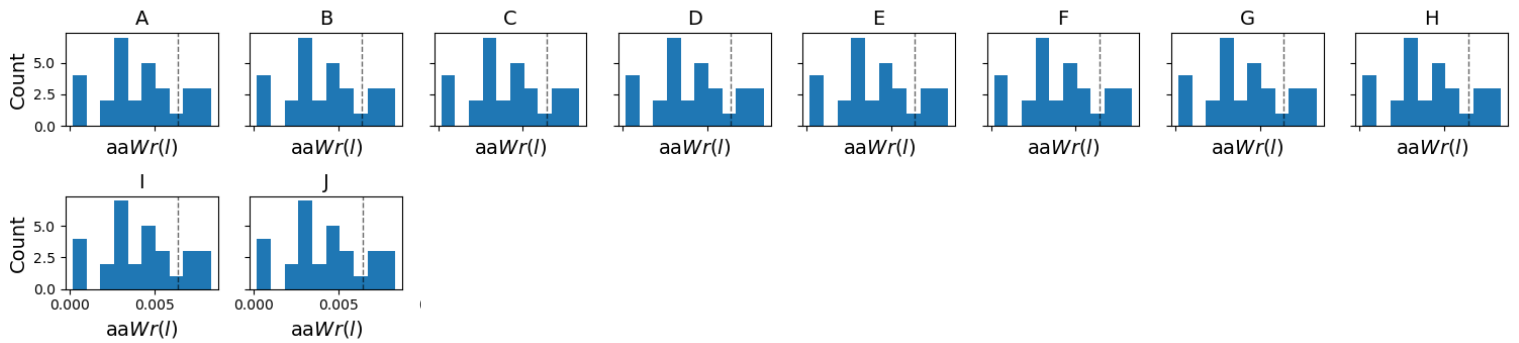
### 8azs (9-42): lecanemab (21-29) epitope



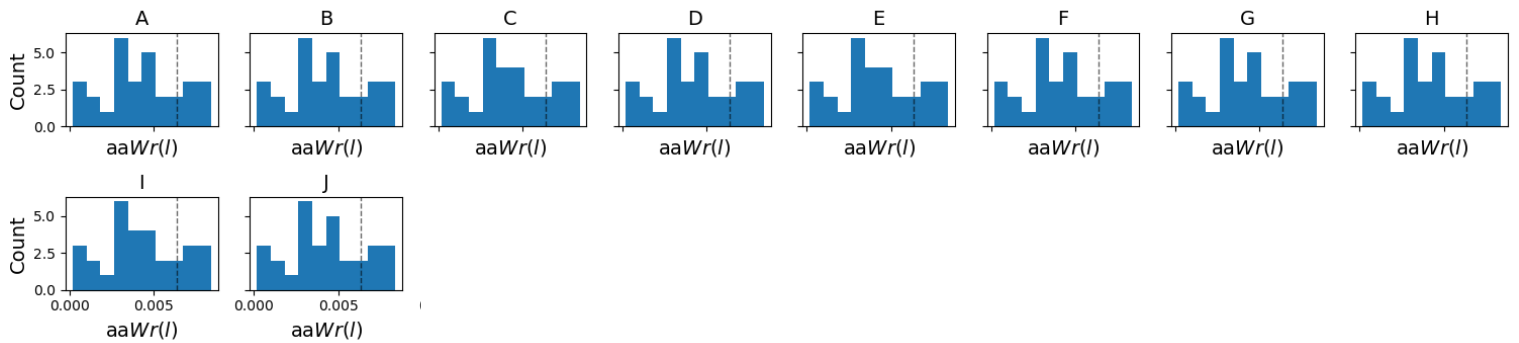
### 8azt (12-42): lecanemab (21-29) epitope



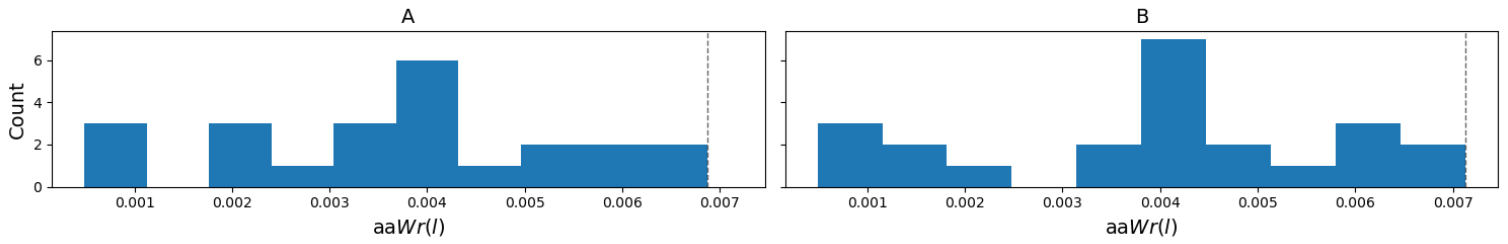
### 8bfa (1-38): Lecanemab (21-29) epitope



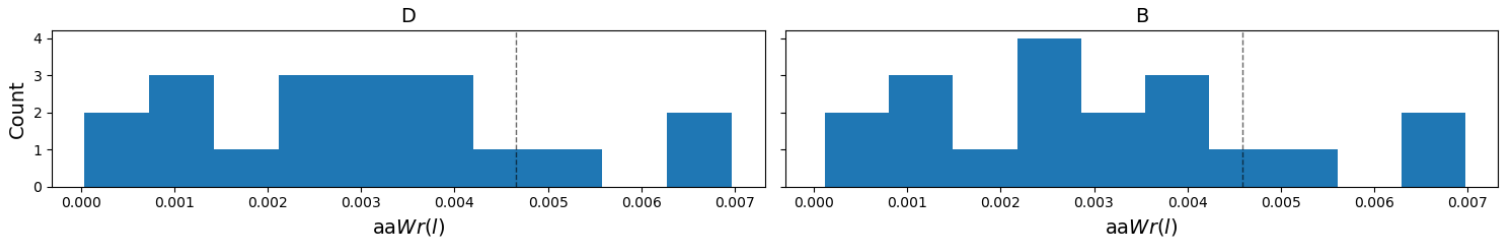
### 8bfb (1-38): Lecanemab (21-29) epitope



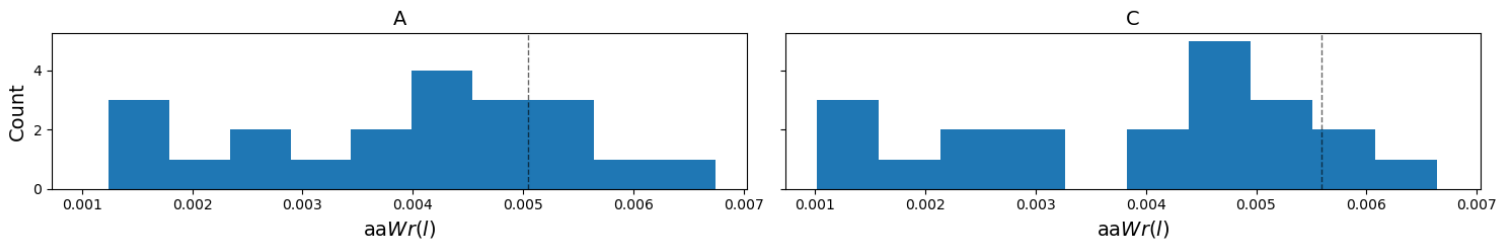
8bfz (12-42): Lecanemab (21-29) epitope



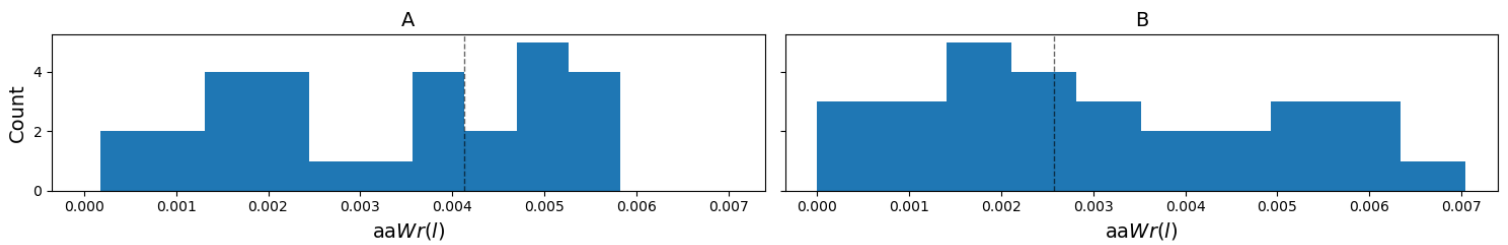
8bg0 (11-37): Lecanemab (21-29) epitope



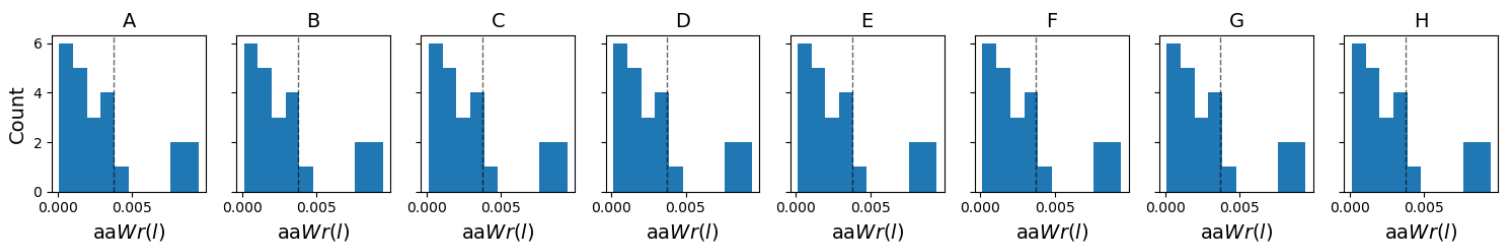
8bg0 (12-40): Lecanemab (21-29) epitope



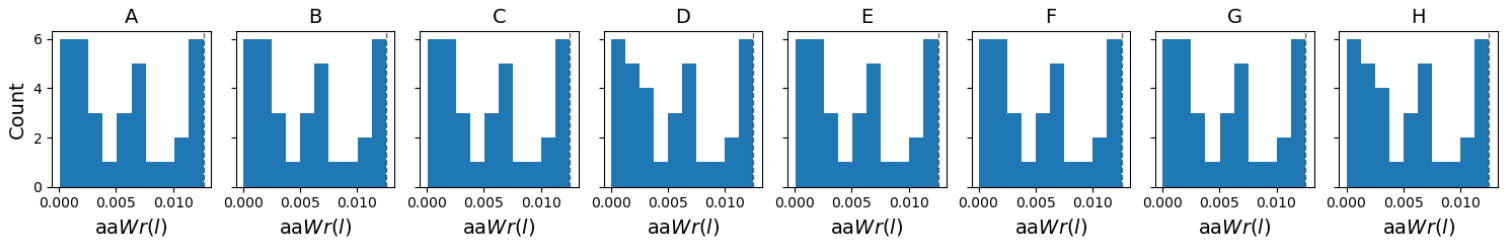
8bg9 (1-37): Lecanemab (21-29) epitope



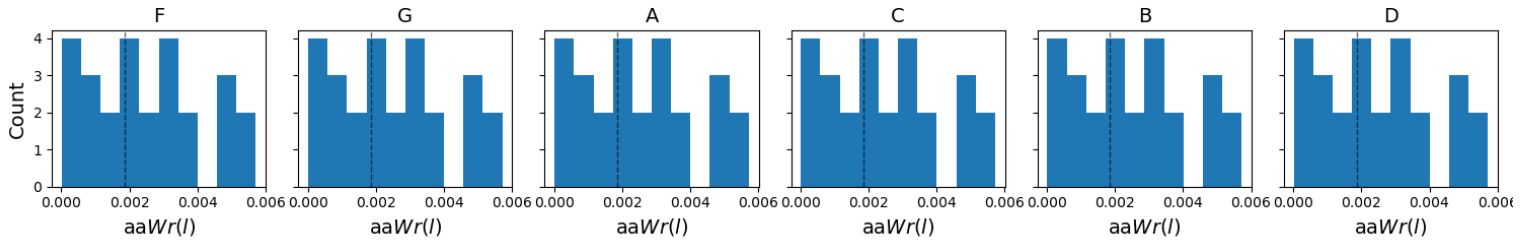
8ezd (12-42): Lecanemab (21-29) epitope



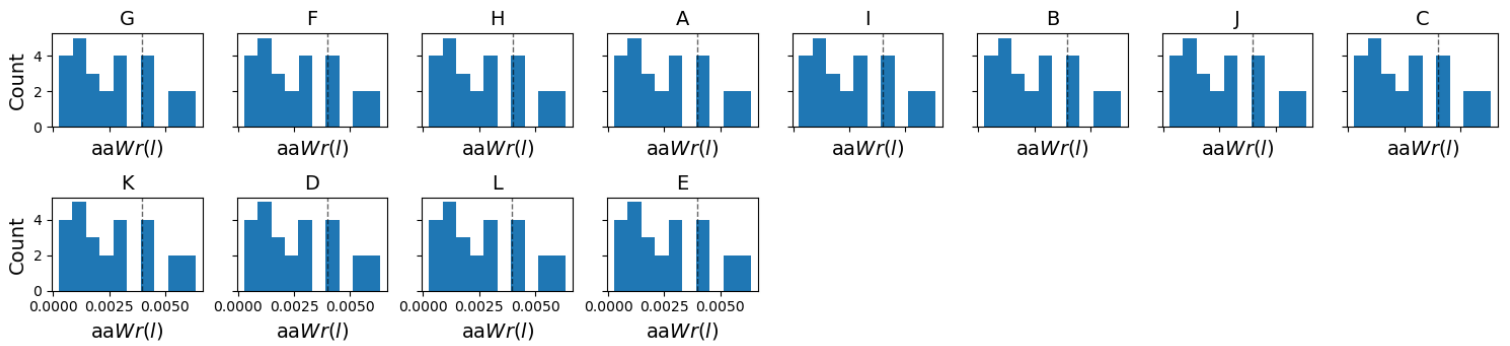
8eze (1-42): Lecanemab (21-29) epitope



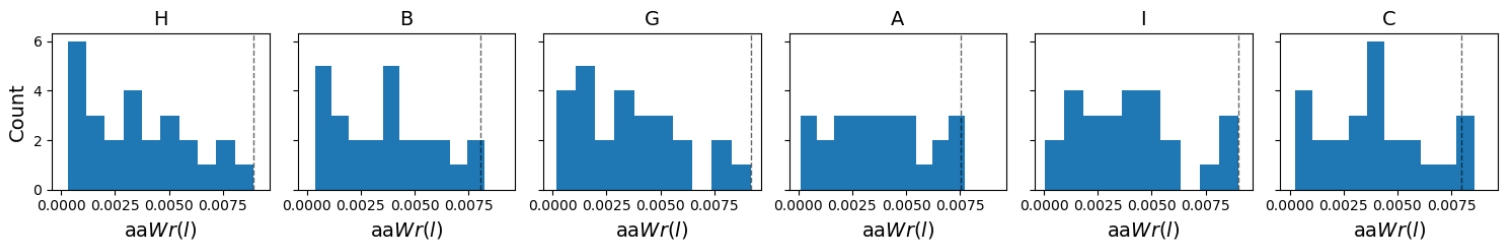
8kew (9-42): Lecanemab (21-29) epitope



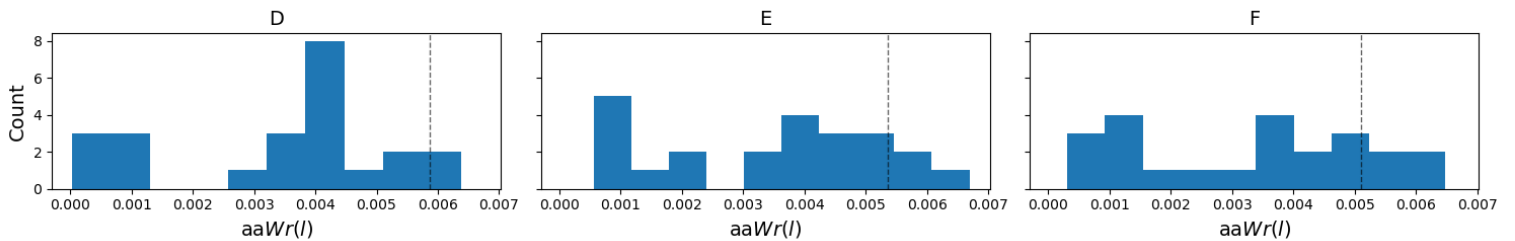
8kf1 (9-42): Lecanemab (21-29) epitope



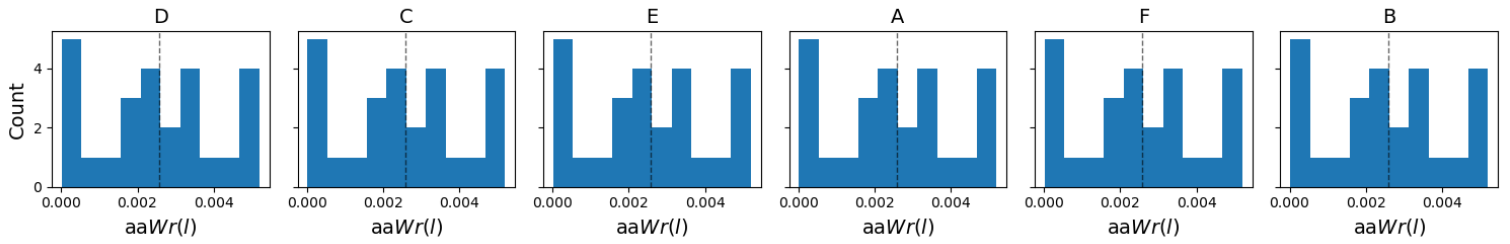
8kf3 (9-42): Lecanemab (21-29) epitope



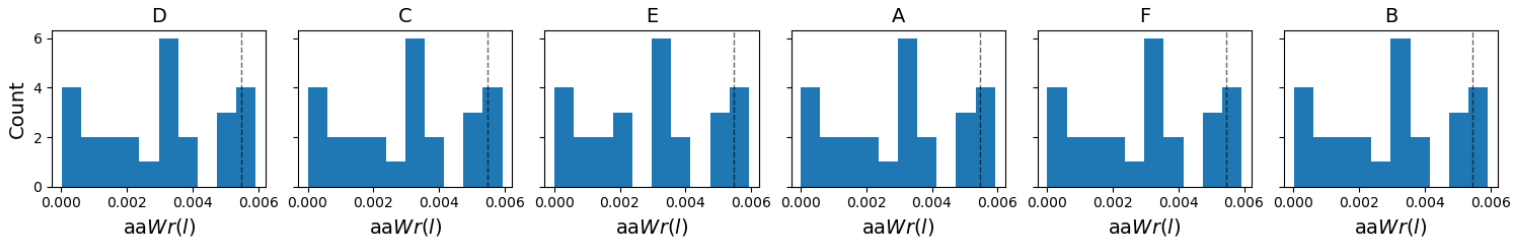
8kf3 (12-42): Lecanemab (21-29) epitope



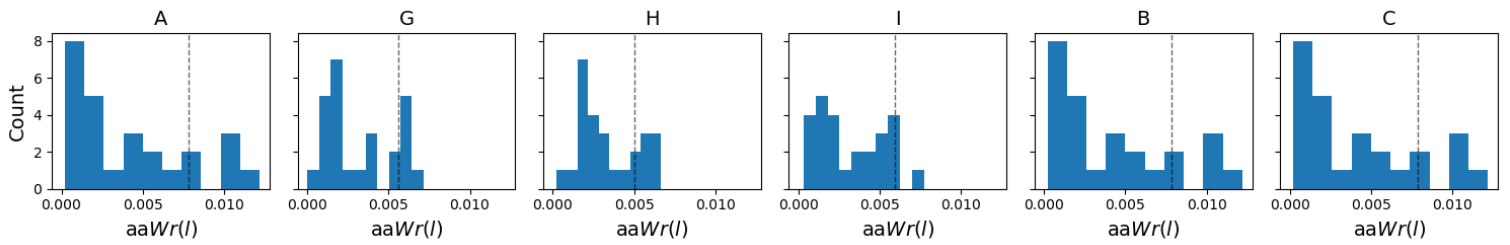
8kf4 (9-42): Lecanemab (21-29) epitope



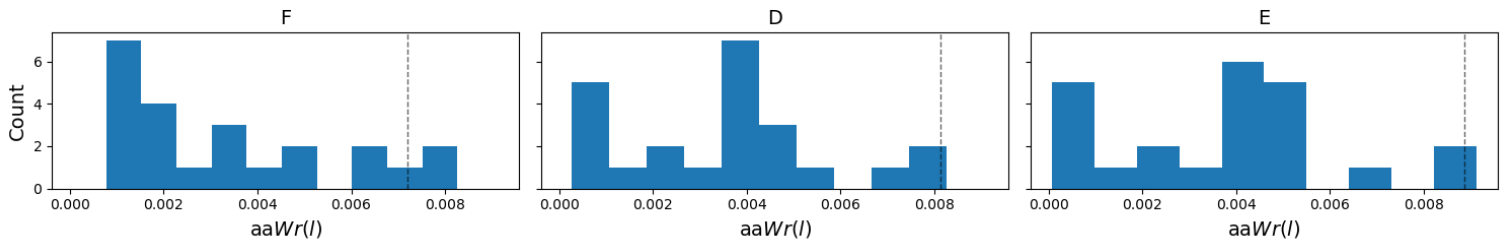
8kf5 (9-42): Lecanemab (21-29) epitope



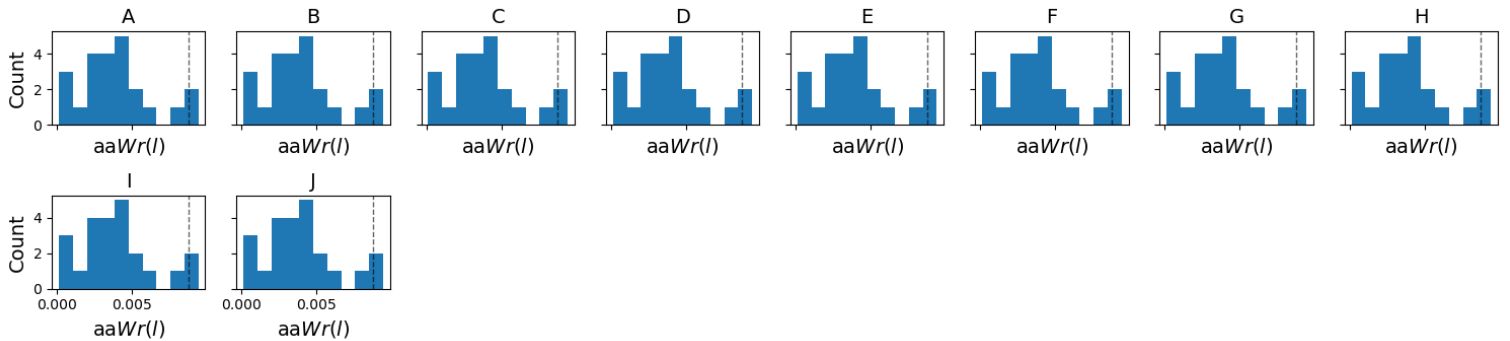
8kf6 (9-42): Lecanemab (21-29) epitope



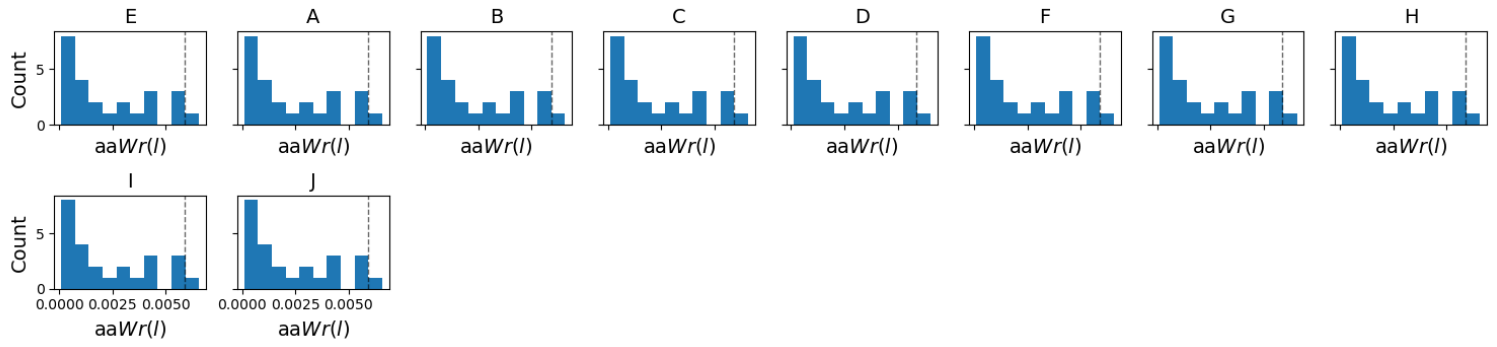
8kf6 (12-42): Lecanemab (21-29) epitope



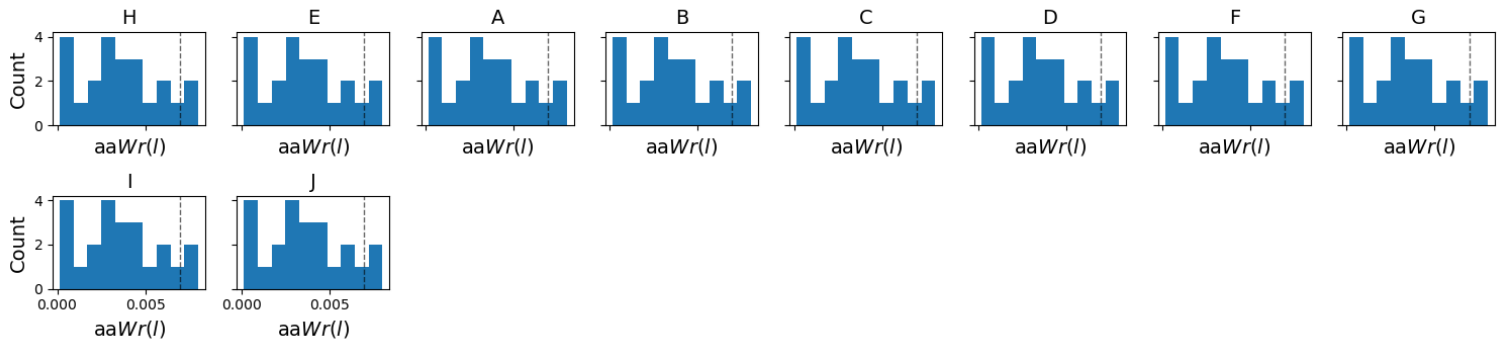
8ol2 (12-42): Lecanemab (21-29) epitope



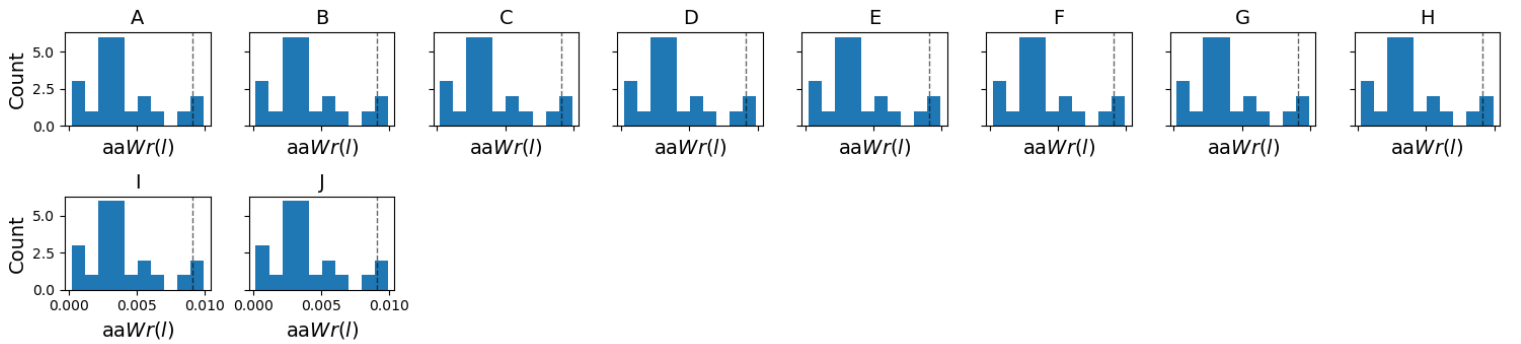
### 8o13 (10-42): Lecanemab (21-29) epitope



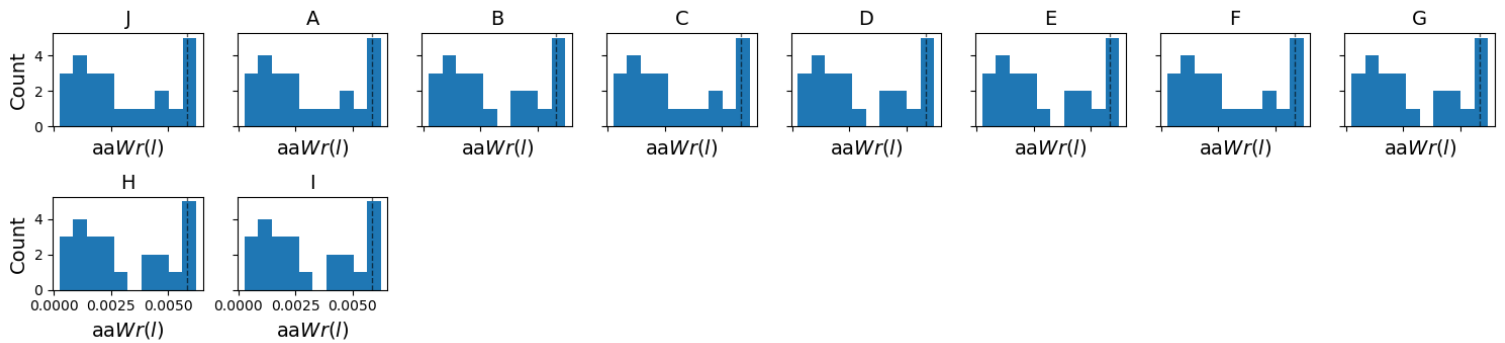
### 8o15 (12-42): Lecanemab (21-29) epitope



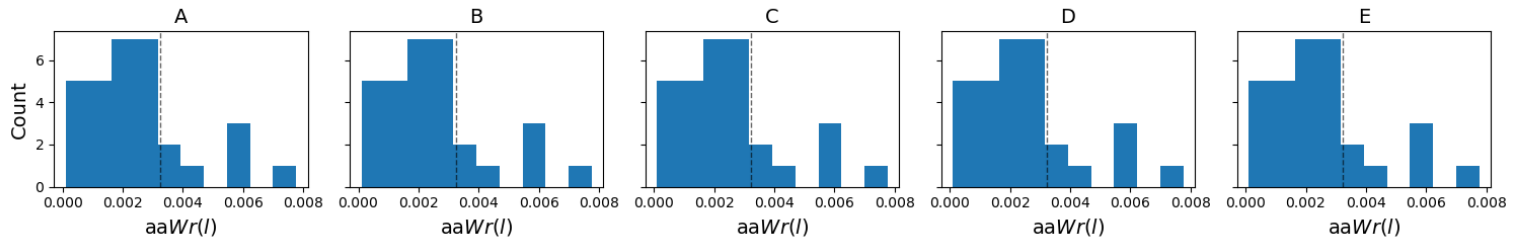
### 8o16 (12-42): Lecanemab (21-29) epitope



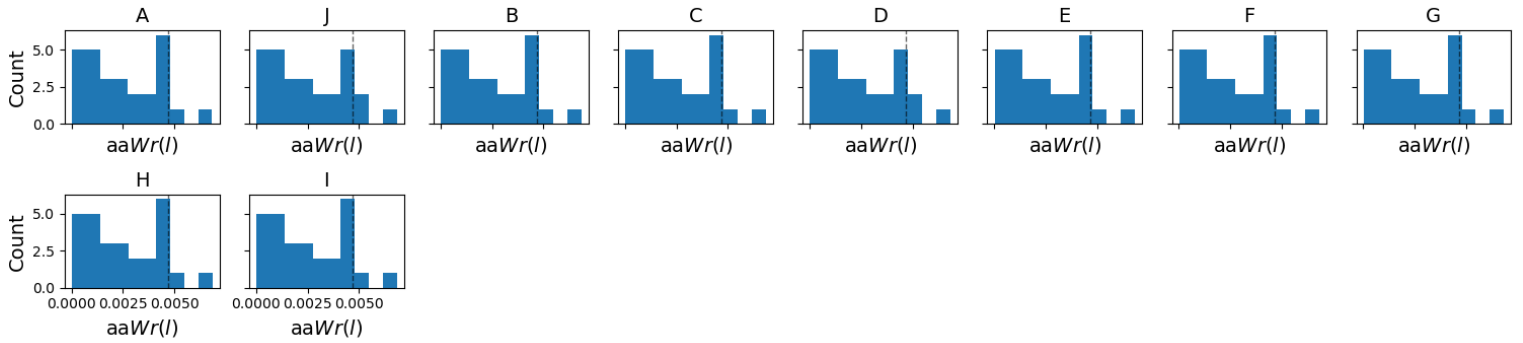
### 8o17 (9-40): Lecanemab (21-29) epitope



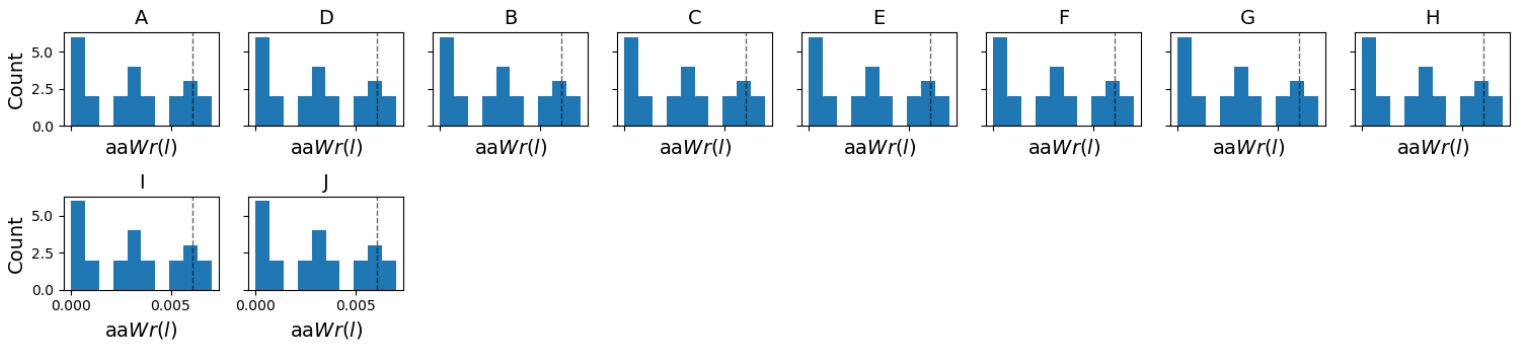
### 8olg (1-39): Lecanemab (21-29) epitope



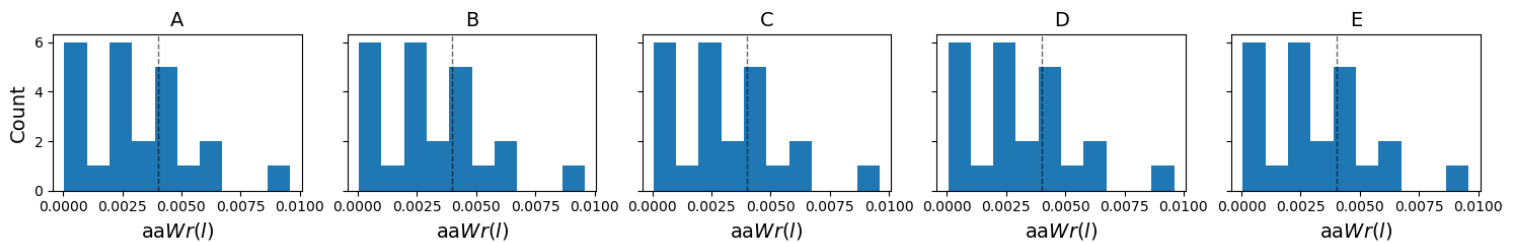
### 8oln (1-36): Lecanemab (21-29) epitope



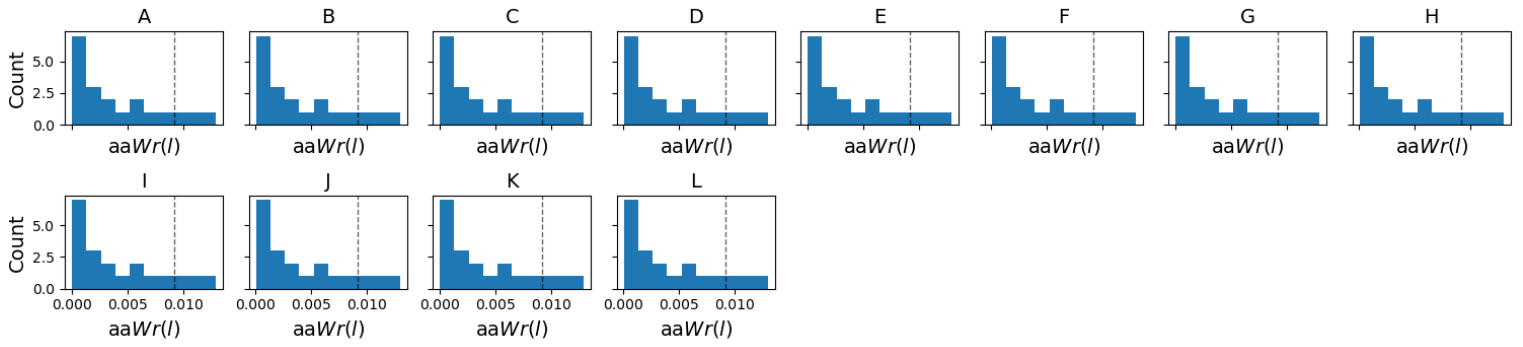
### 8olo (10-40): Lecanemab (21-29) epitope



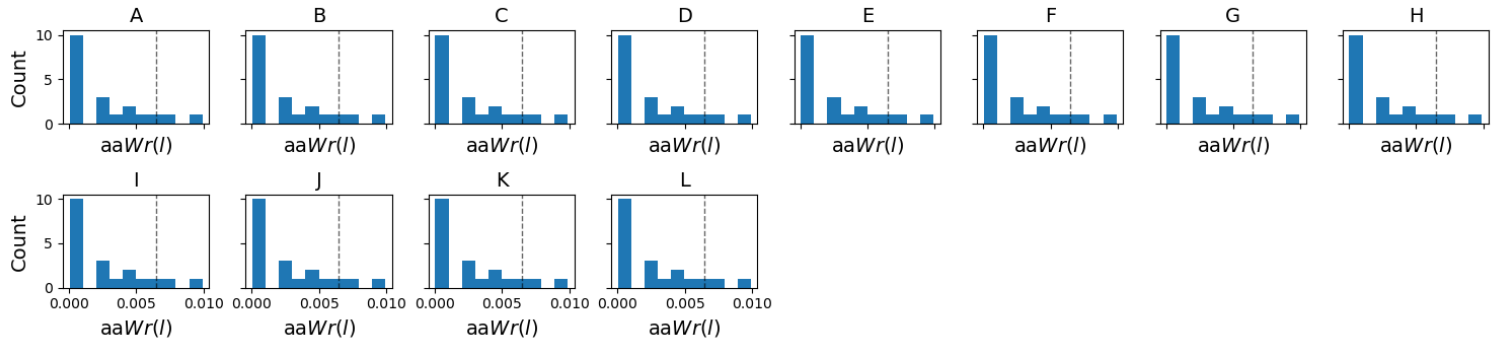
### 8olq (2-33): Lecanemab (21-29) epitope



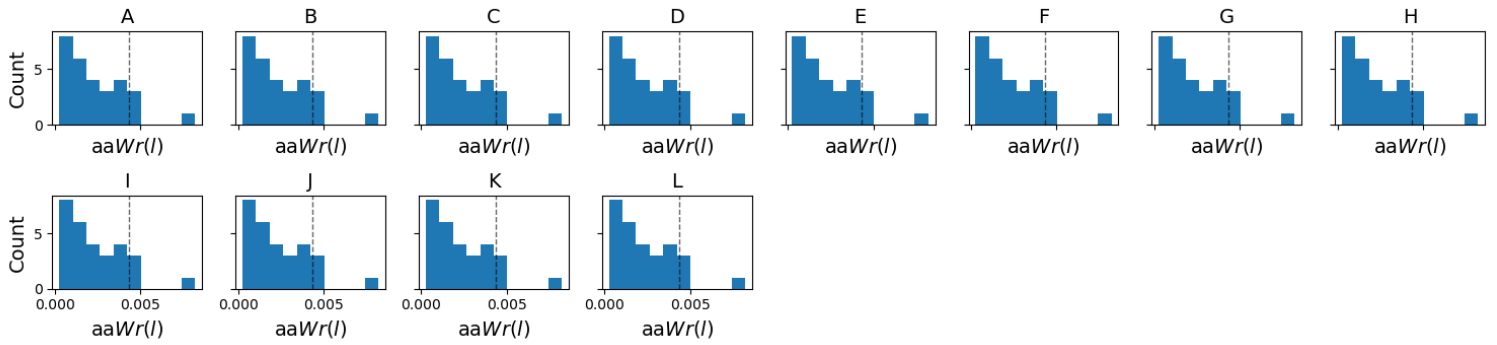
### 8ot1 (13-40): Lecanemab (21-29) epitope



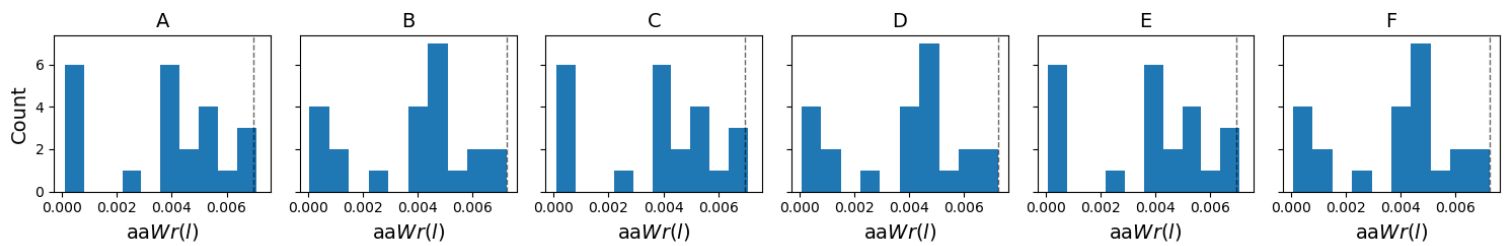
### 8ot3 (13-40): Lecanemab (21-29) epitope



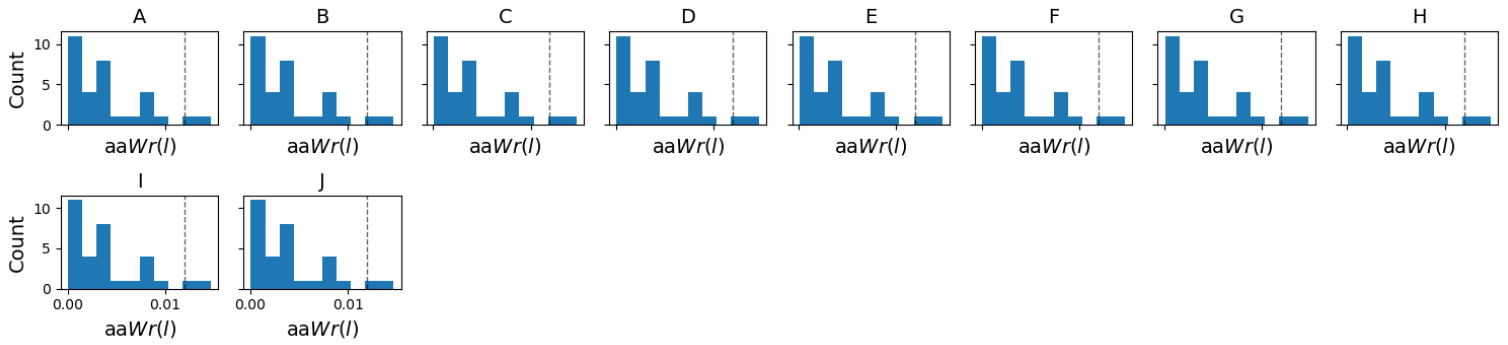
### 8ot4 (1-37): Lecanemab (21-29) epitope



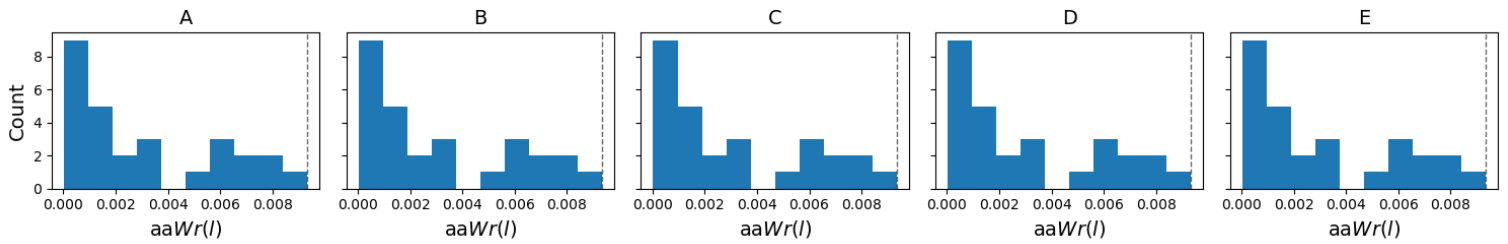
### 8otf (12-42): Lecanemab (21-29) epitope



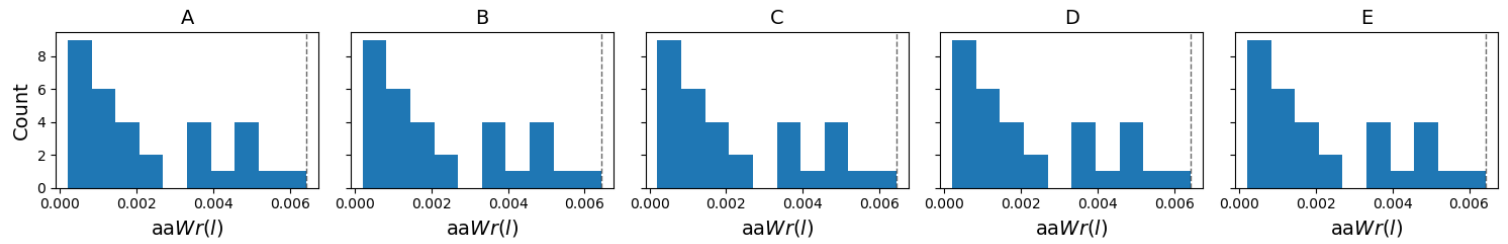
### 8ovk (1-40): Lecanemab (21-29) epitope



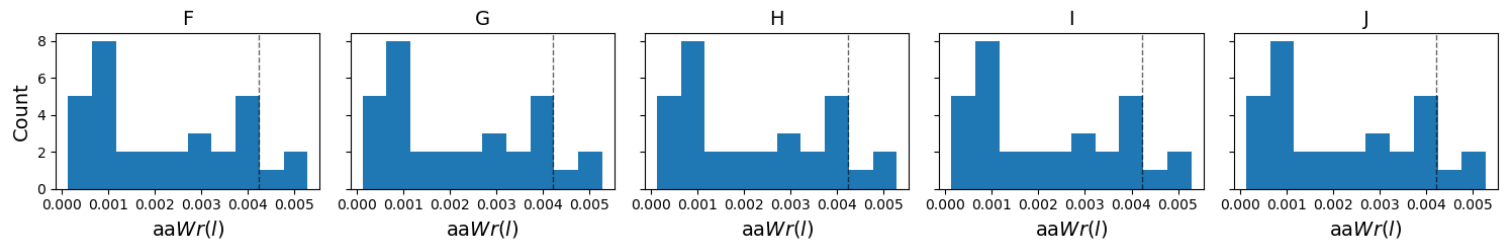
### 8ovm (5-40): Lecanemab (21-29) epitope



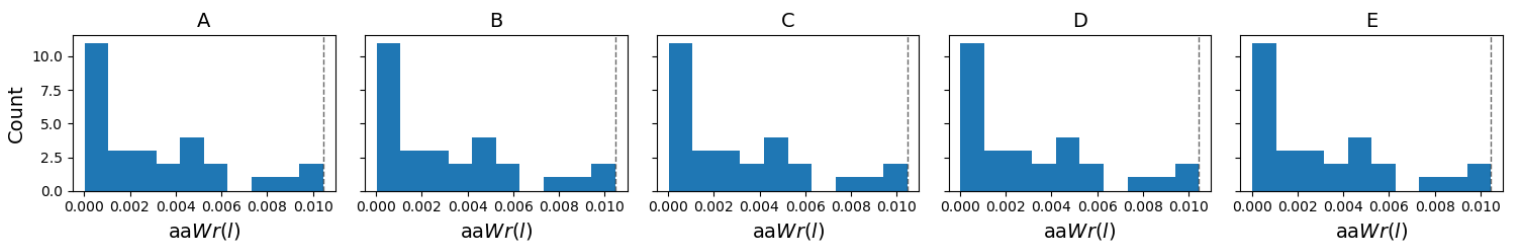
### 8owd (1-40): Lecanemab (21-29) epitope



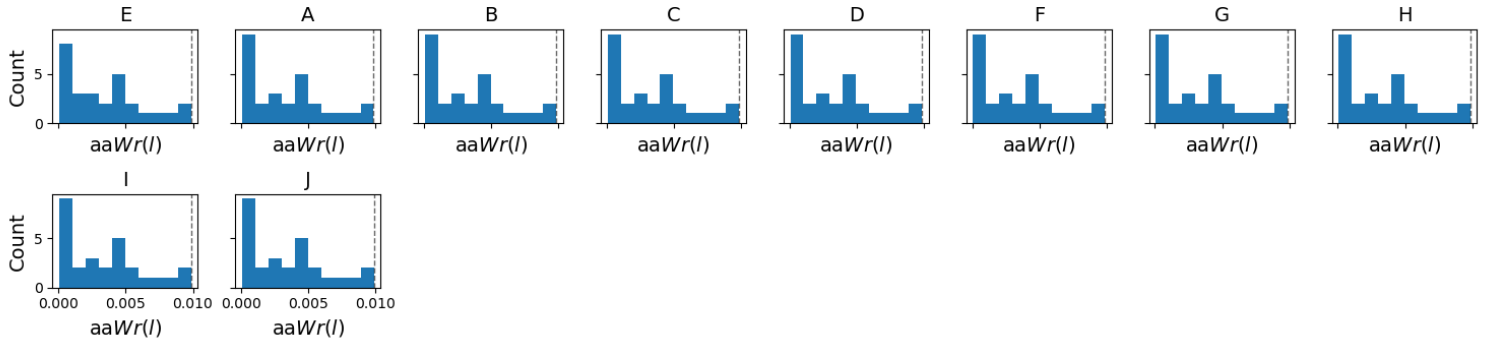
### 8owe (1-40): Lecanemab (21-29) epitope



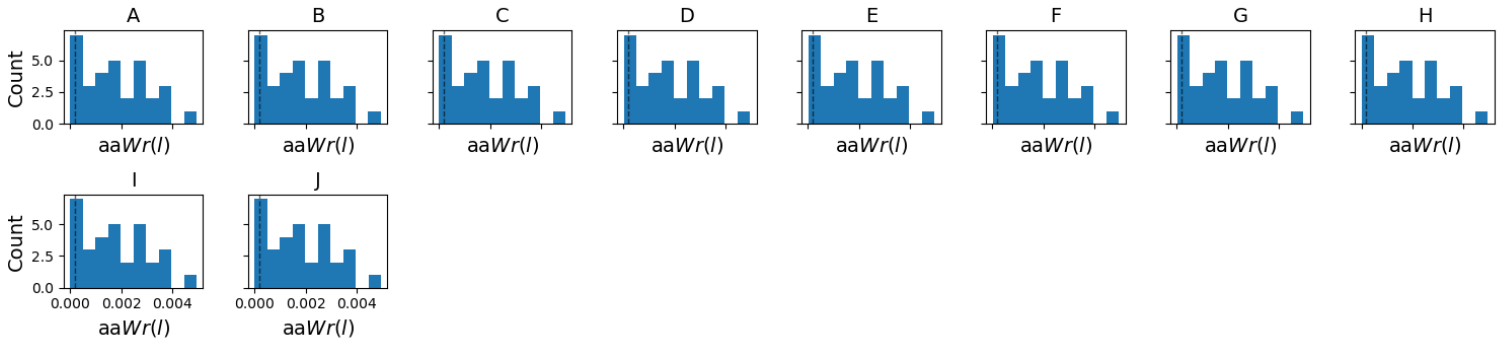
### 8owe (4-40): Lecanemab (21-29) epitope



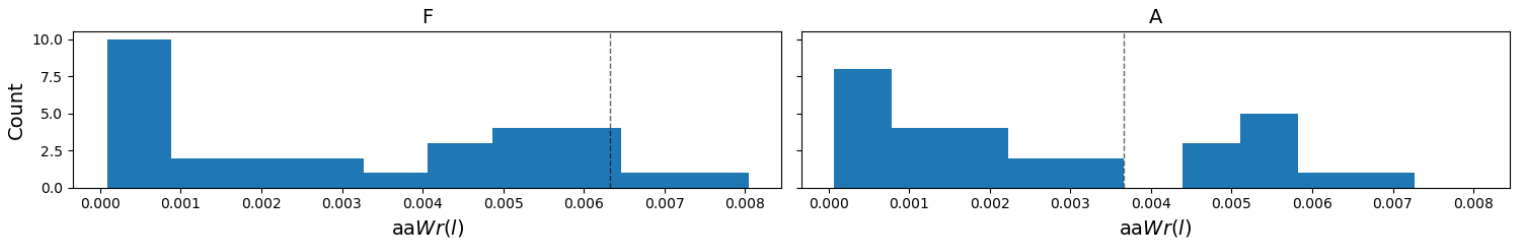
### 8owj (5-40): Lecanemab (21-29) epitope



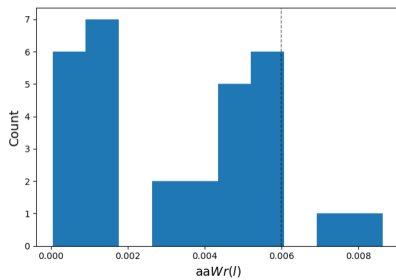
### 8owk (1-40): Lecanemab (21-29) epitope



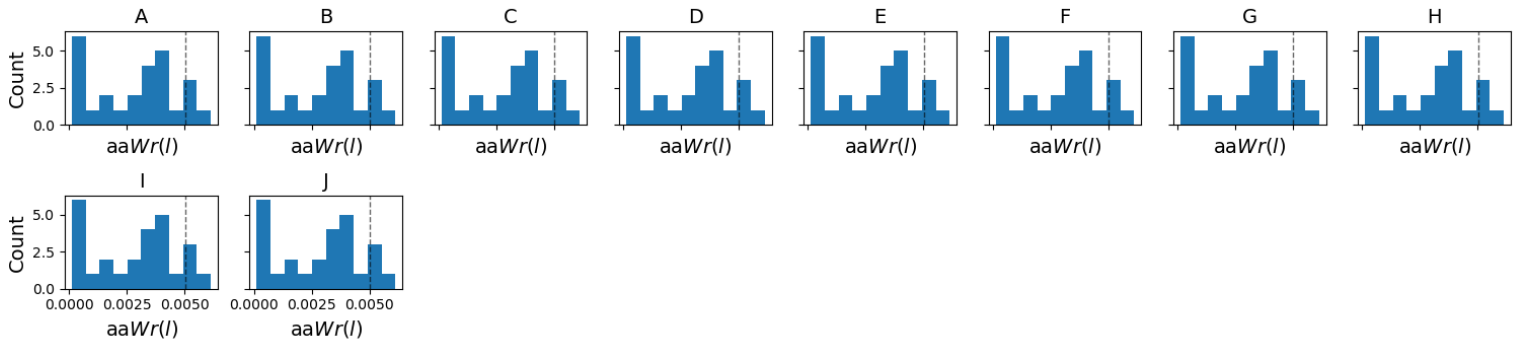
### 8qn6 (1-38): Lecanemab (21-29) epitope



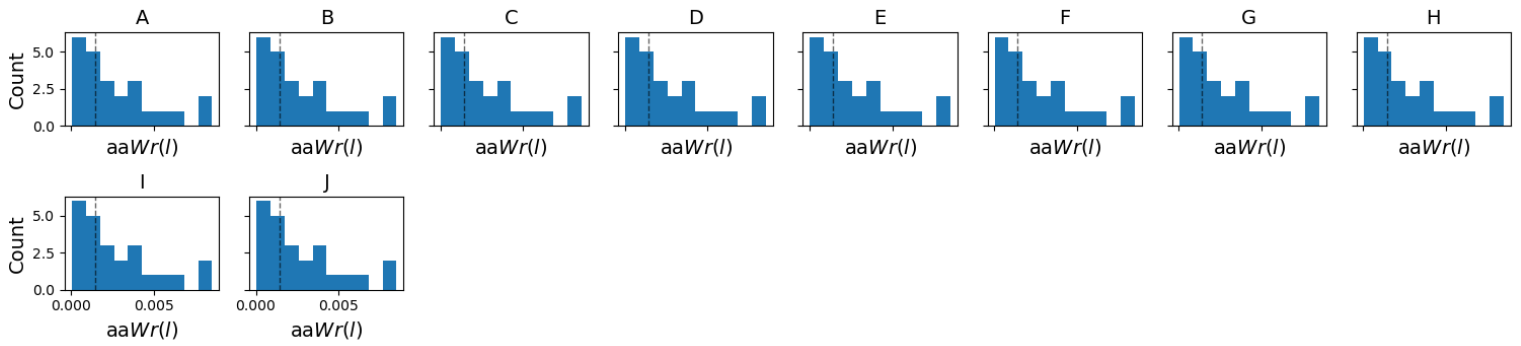
### 8qn7 (1-38): lecanemab (21-29) epitope



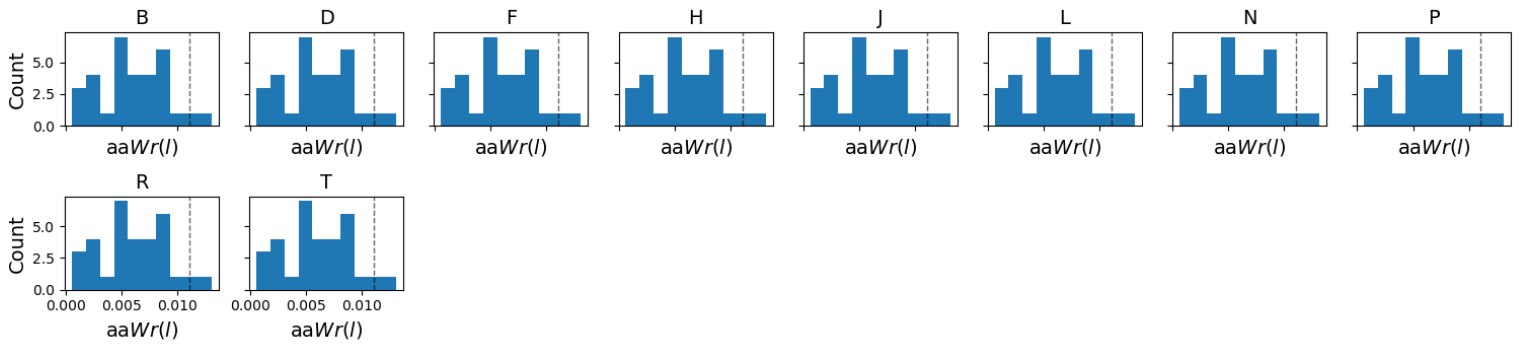
### 8sej (9-42): Lecanemab (21-29) epitope



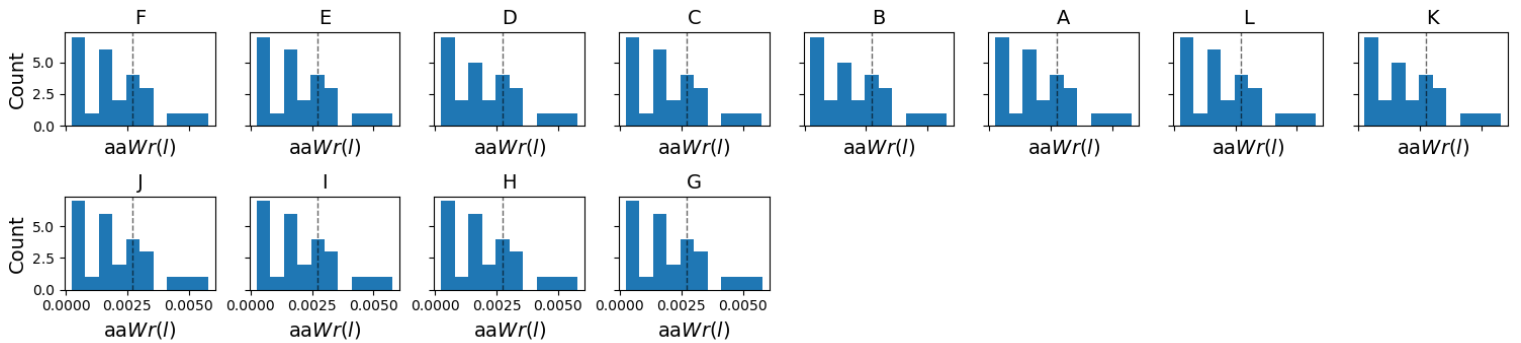
### 8sek (9-40): Lecanemab (21-29) epitope



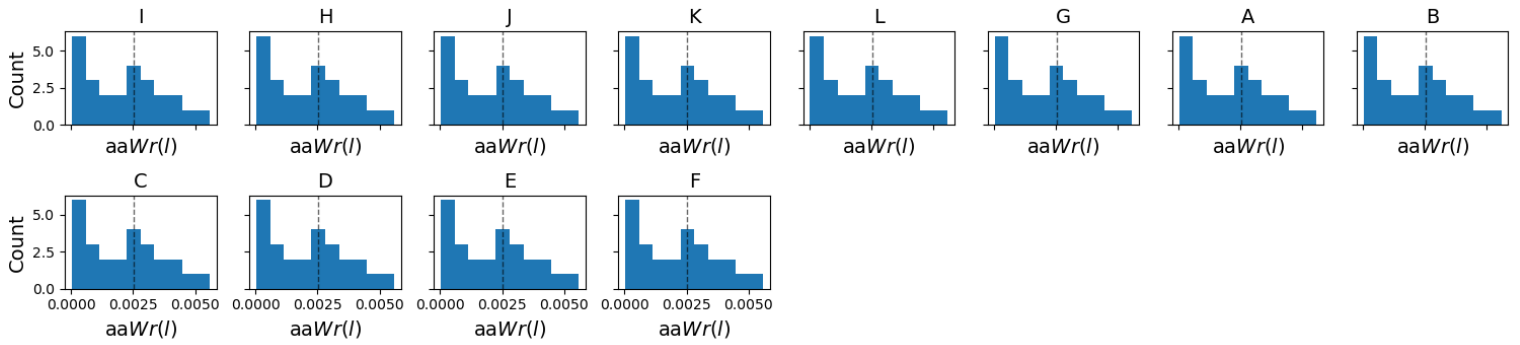
### 8sel (1-40): Lecanemab (21-29) epitope



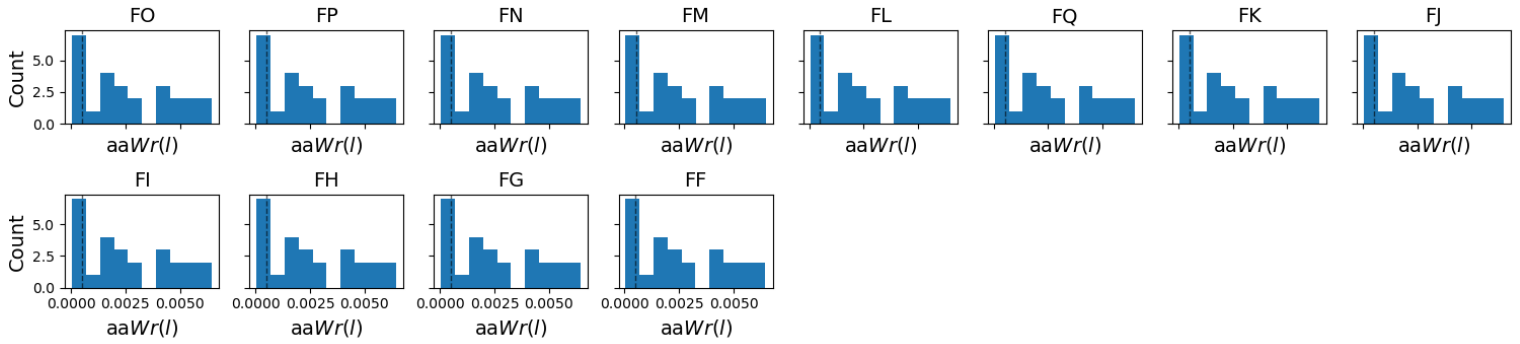
### 9jaz (9-42): Lecanemab (21-29) epitope



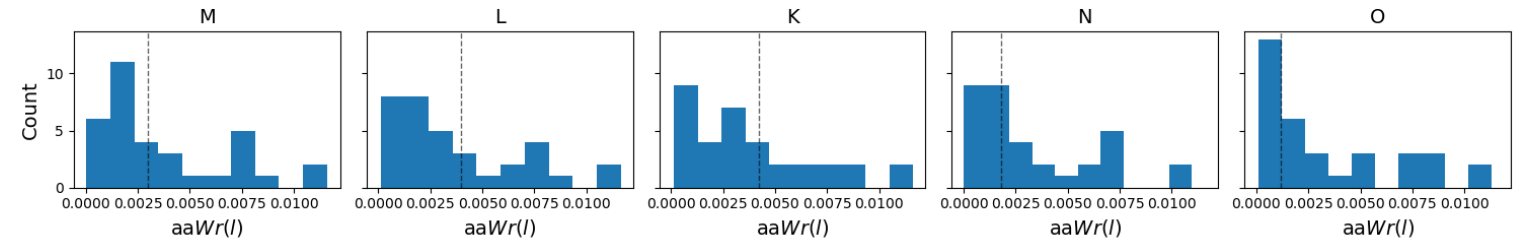
### 9jb0 (9-42): Lecanemab (21-29) epitope



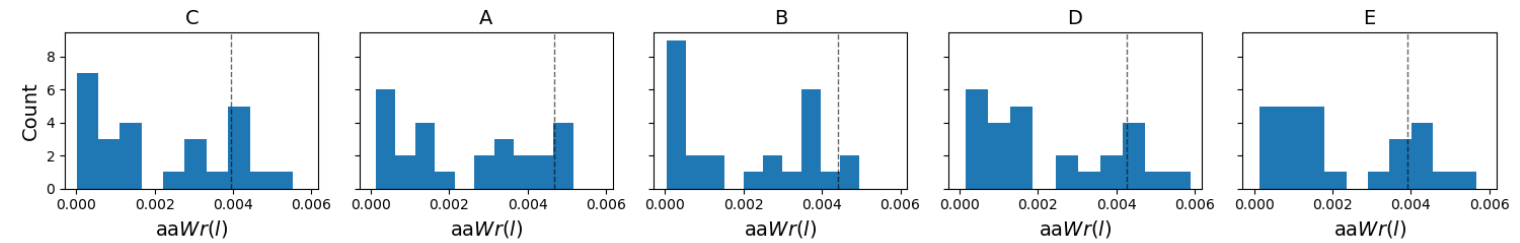
### 9jb1 (9-42): Lecanemab (21-29) epitope



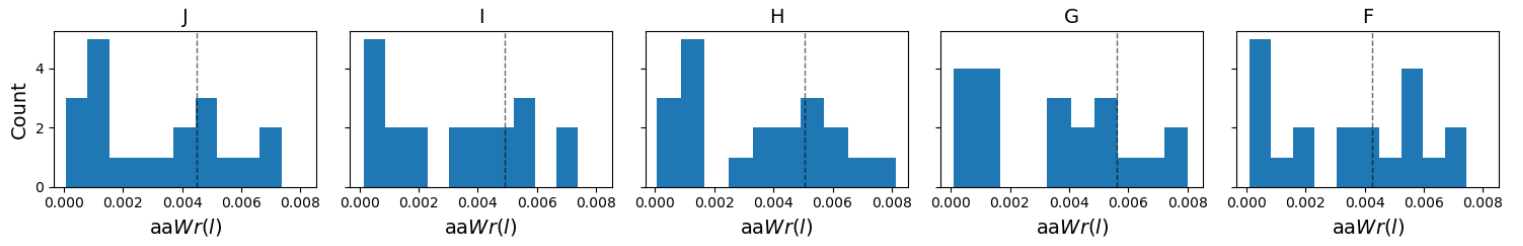
### 9jb2 (1-42): Lecanemab (21-29) epitope

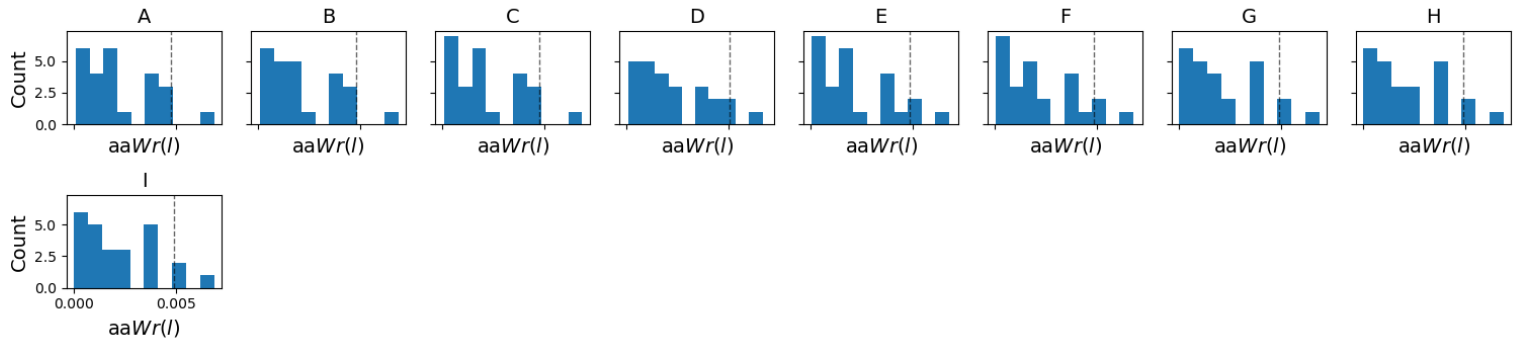
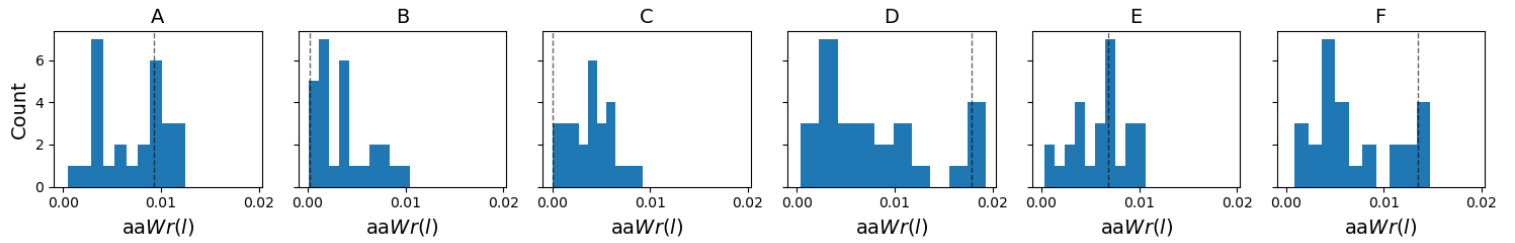
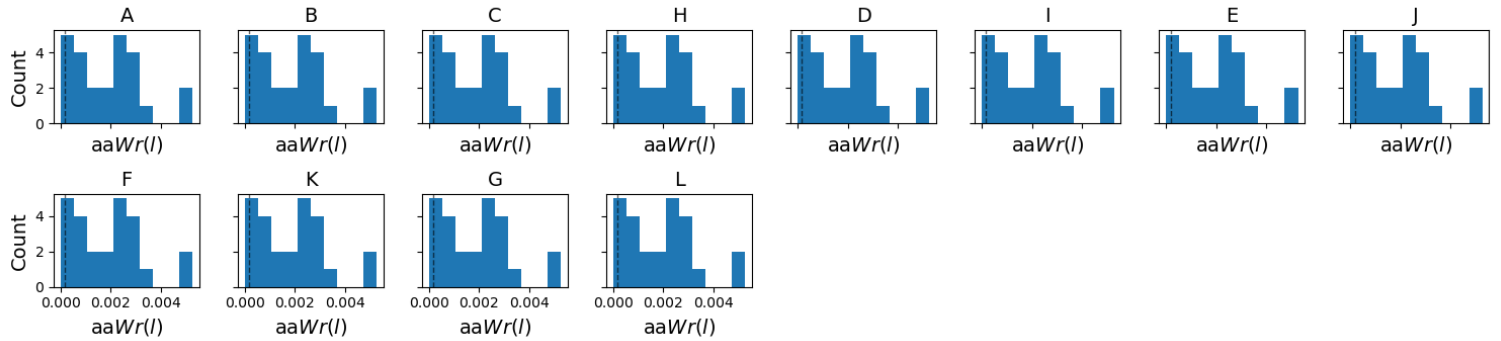
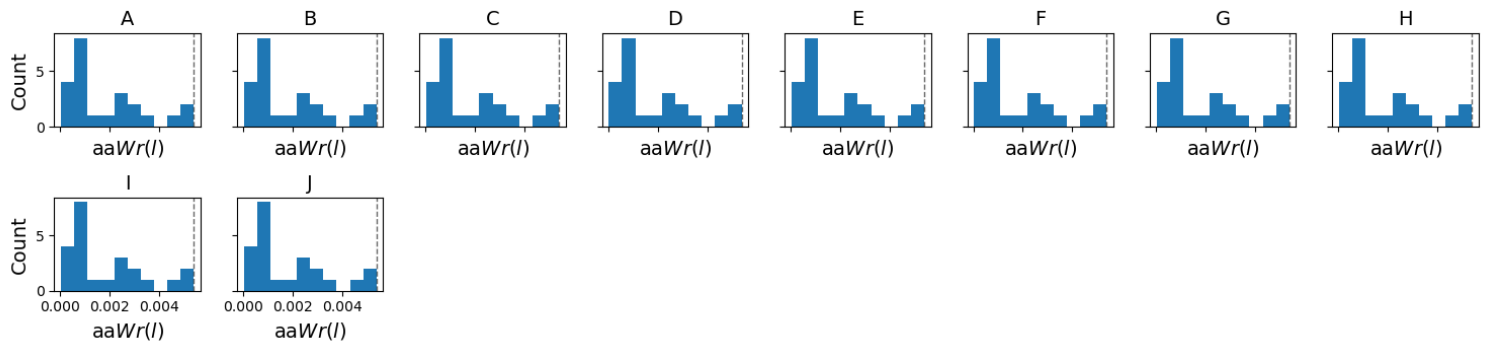


### 9jb2 (9-42): Lecanemab (21-29) epitope

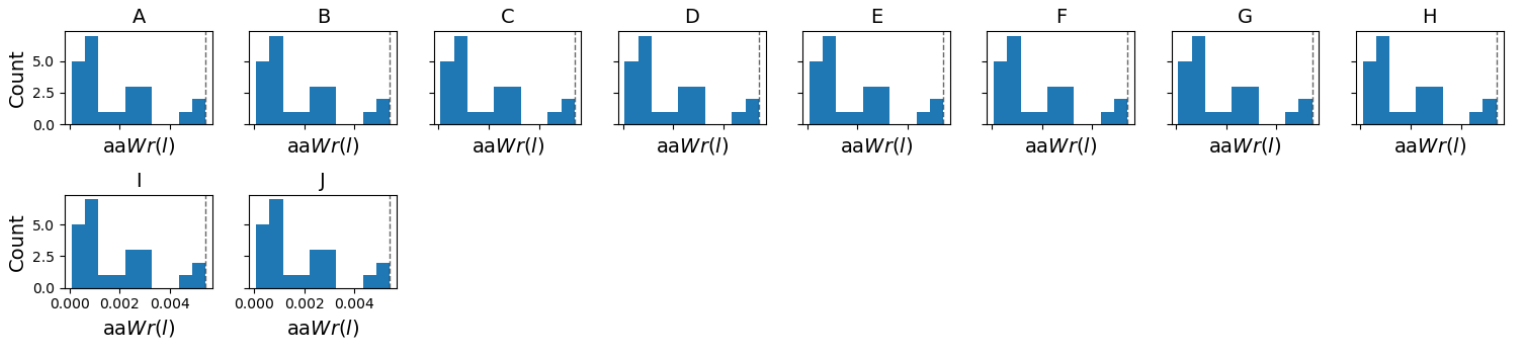


9jb2 (15-42): Lecanemab (21-29) epitope

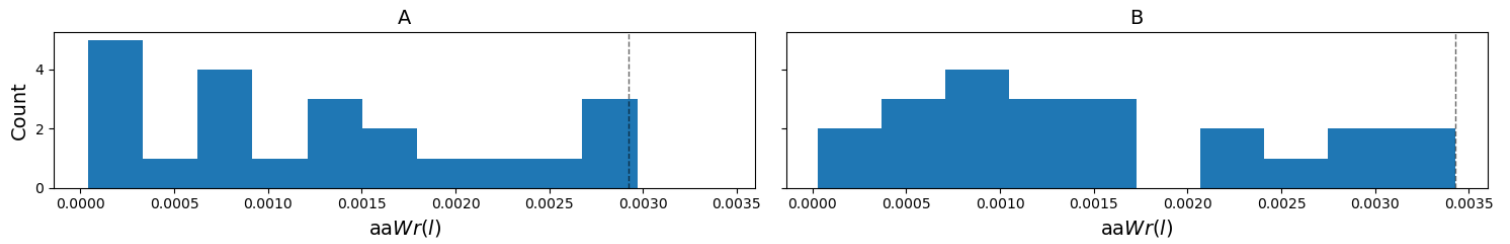


**b****2m4j (1-40): Lecanemab (1-16) epitope****2nao (1-42): Lecanemab (1-16) epitope****6shs (1-40): Lecanemab (1-16) epitope****8bfa (1-38): Lecanemab (1-16) epitope**

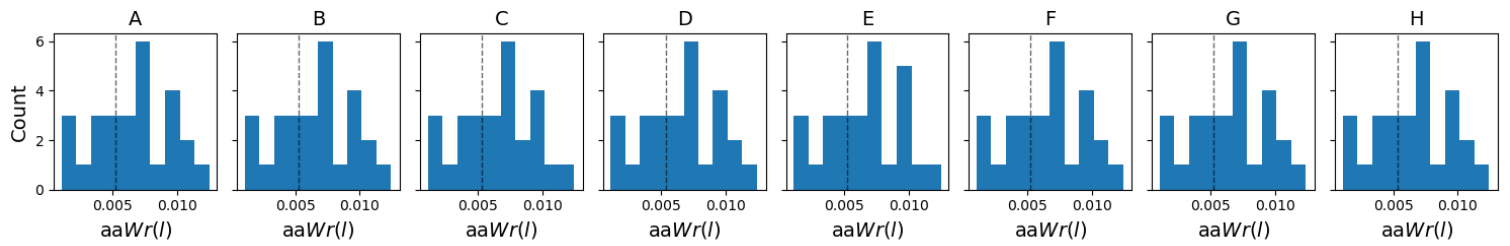
### 8bf8 (1-38): Lecanemab (1-16) epitope



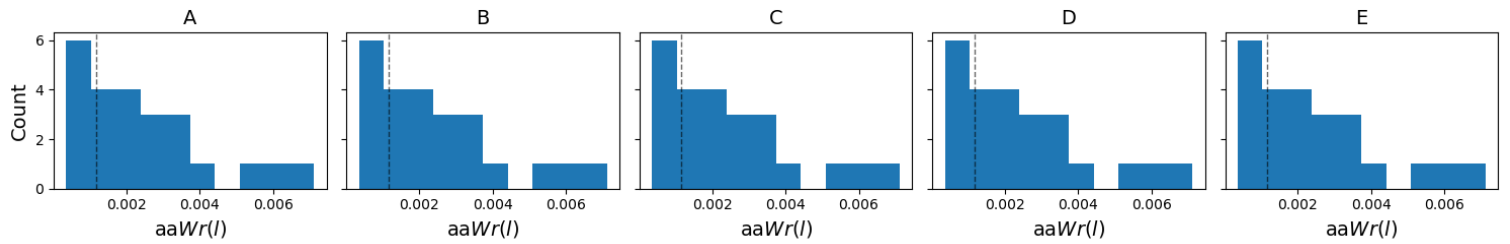
### 8bg9 (1-37): Lecanemab (1-16) epitope



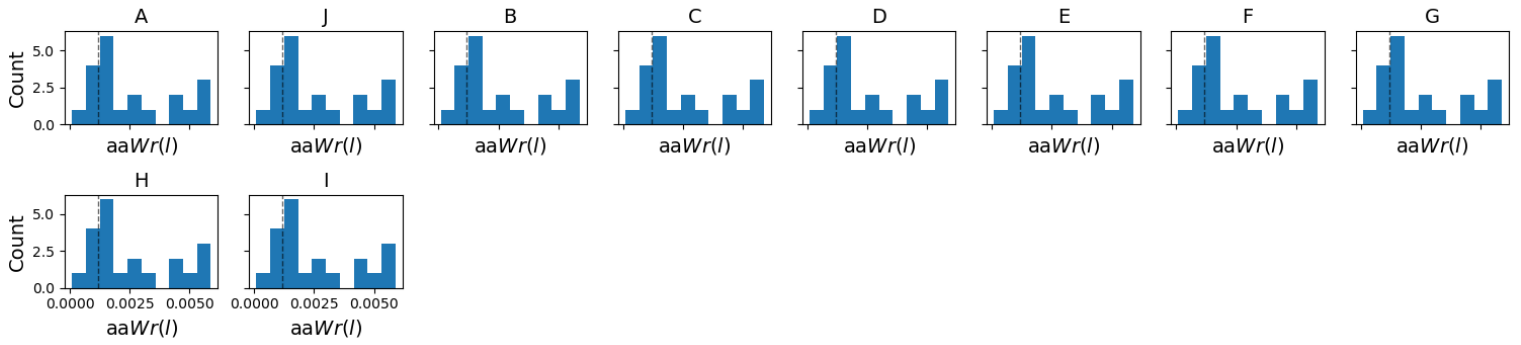
### 8eze (1-42): Lecanemab (1-16) epitope



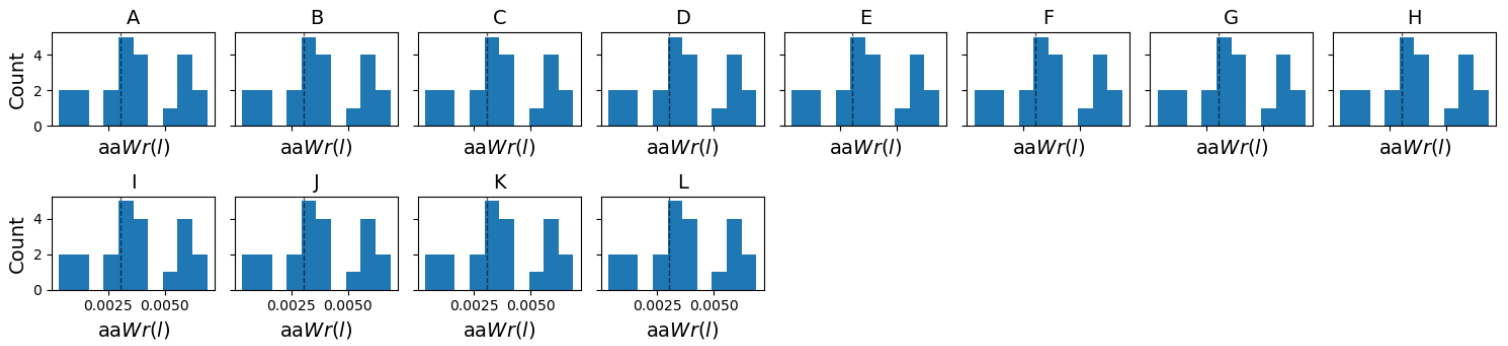
### 8olg (1-39): Lecanemab (1-16) epitope



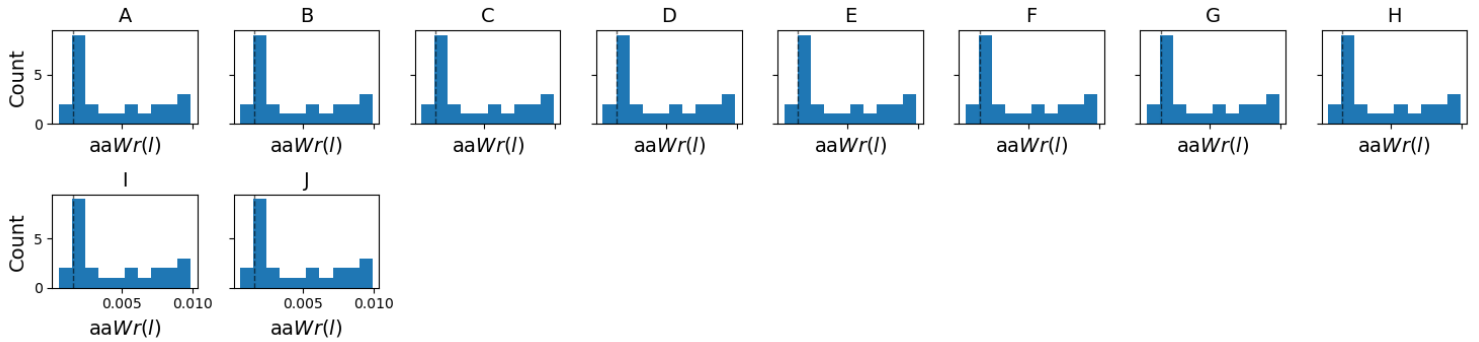
### 8oIn (1-36): Lecanemab (1-16) epitope



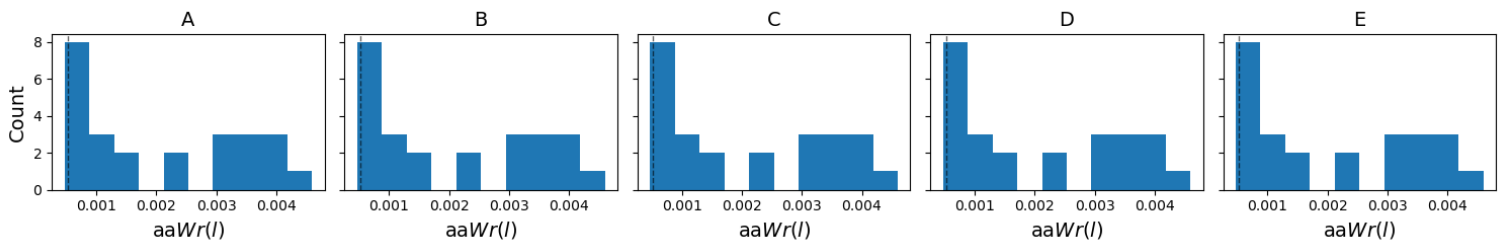
### 8ot4 (1-37): Lecanemab (1-16) epitope



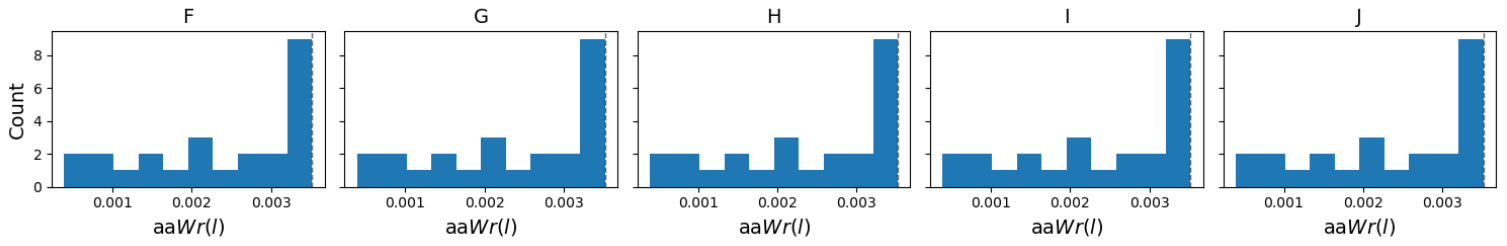
### 8ovk (1-40): Lecanemab (1-16) epitope



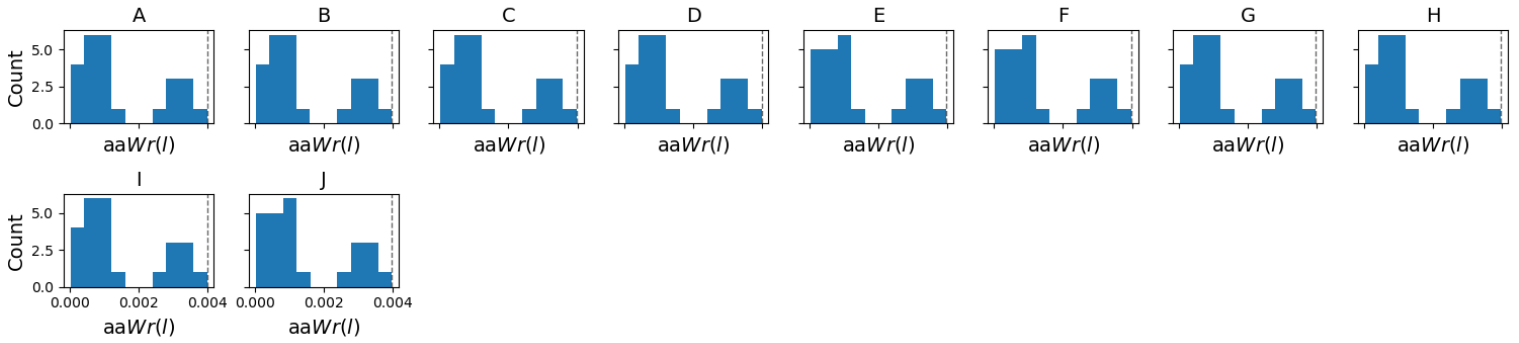
### 8owd (1-40): Lecanemab (1-16) epitope



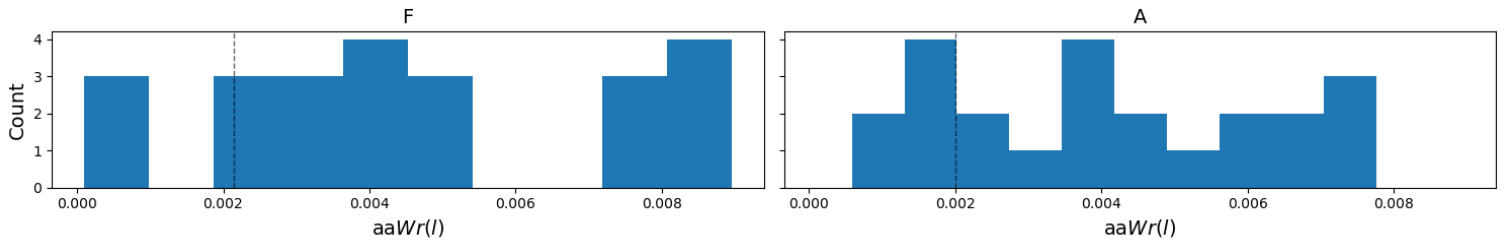
8owe (1-40): Lecanemab (1-16) epitope



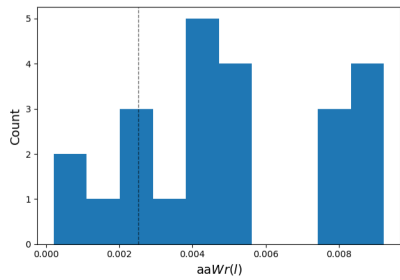
8owk (1-40): Lecanemab (1-16) epitope



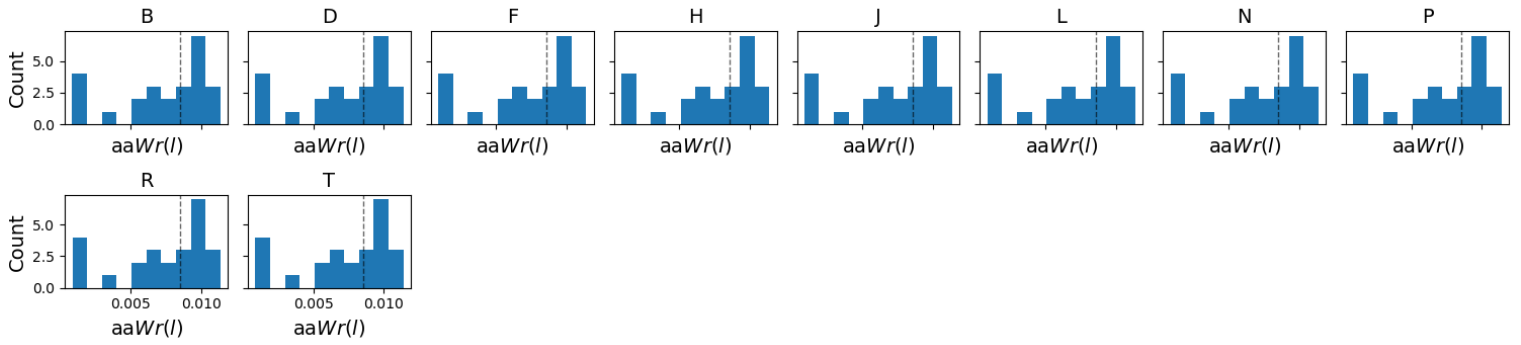
8qn6 (1-38): Lecanemab (1-16) epitope



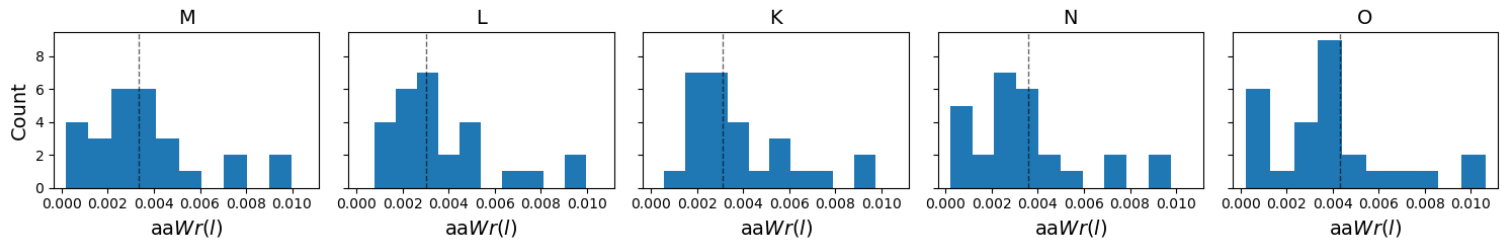
8qn7 (1-38): Lecanemab (1-16) epitope

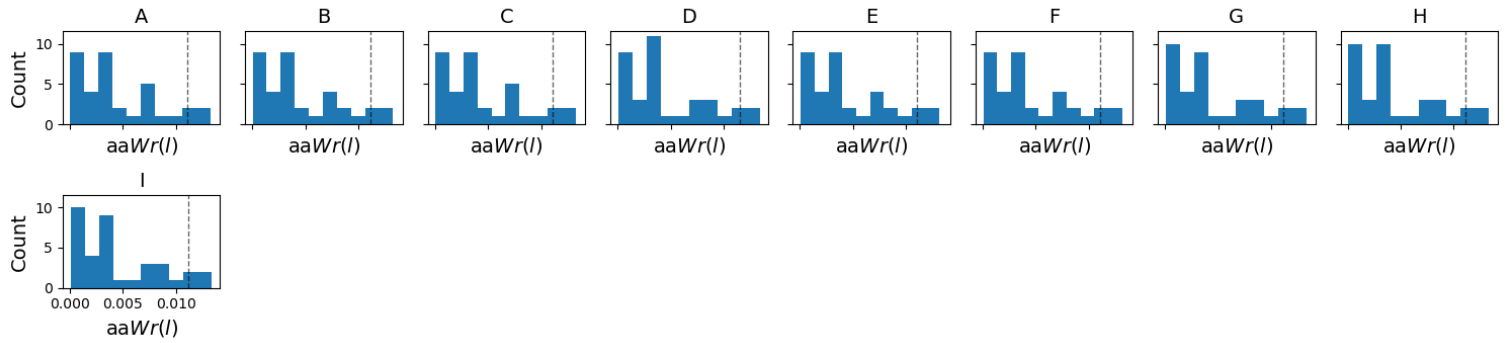
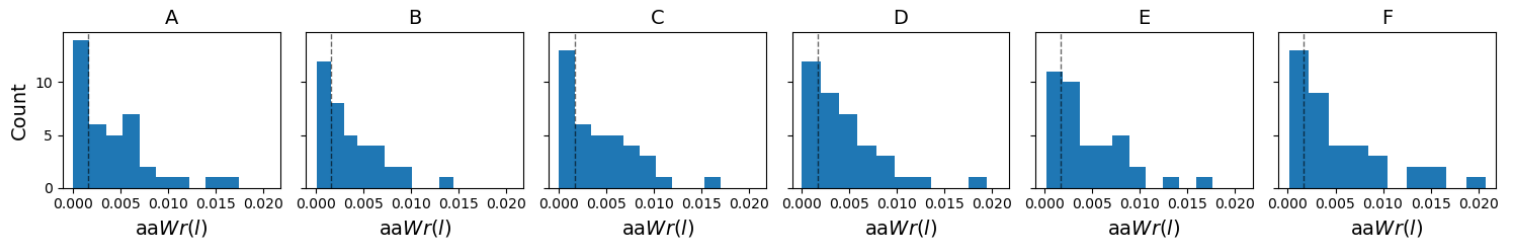
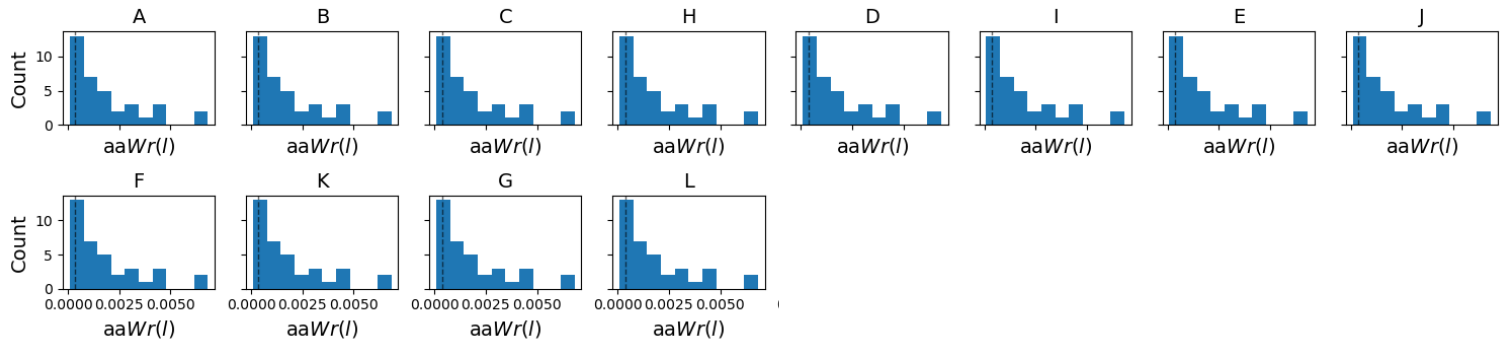
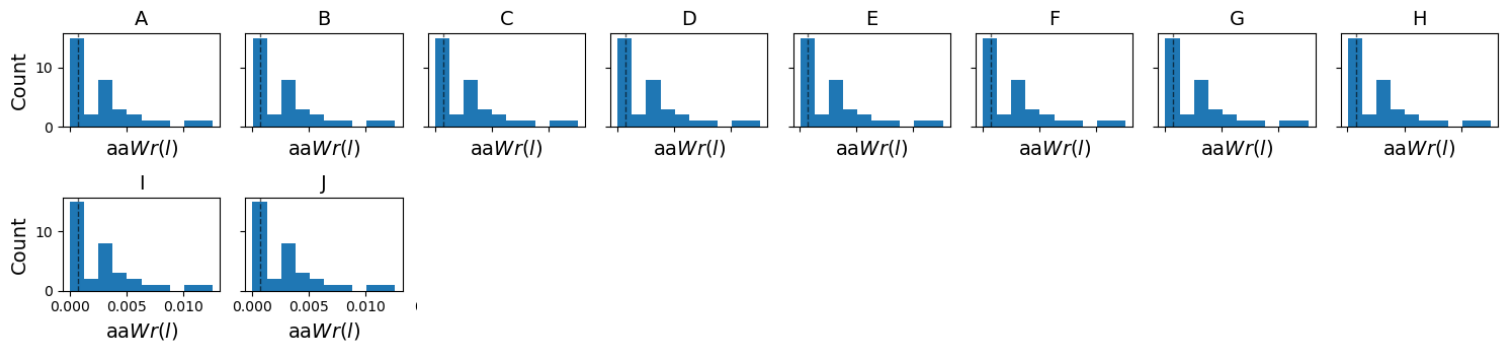


### 8sel (1-40): Lecanemab (1-16) epitope

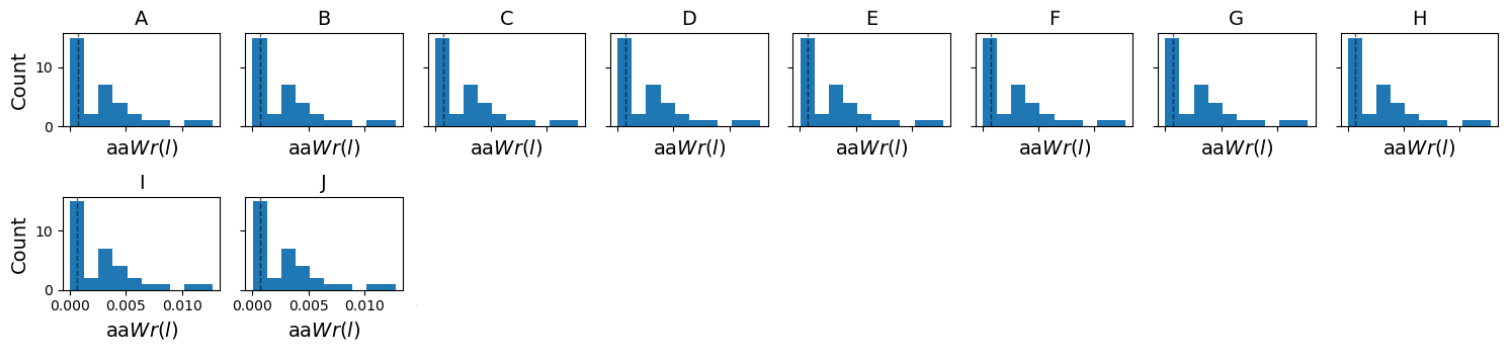


### 9jb2 (1-42): Lecanemab (1-16) epitope

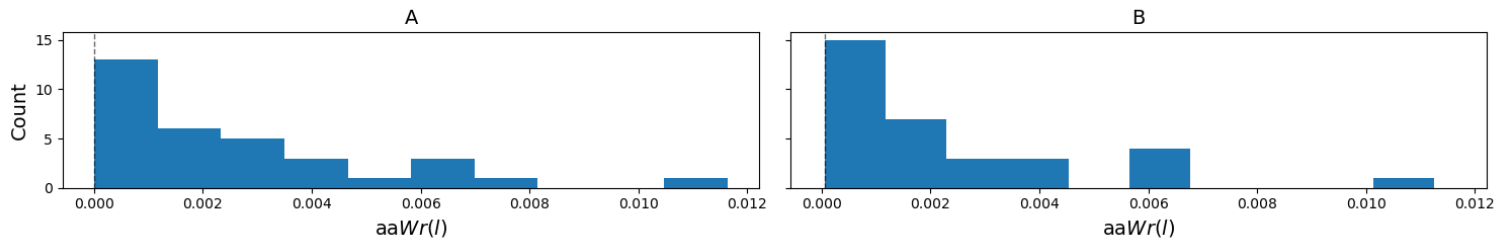


**C****2m4j (1-40): Aducanumab (3-7) epitope****2nao (1-42): Aducanumab (3-7) epitope****6shs (1-40): Aducanumab (3-7) epitope****8bfa (1-38): Aducanumab (3-7) epitope**

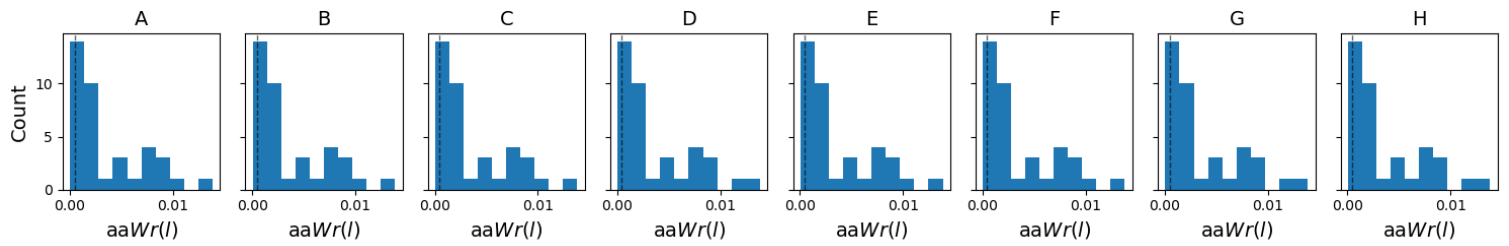
### 8bfb (1-38): Aducanumab (3-7) epitope



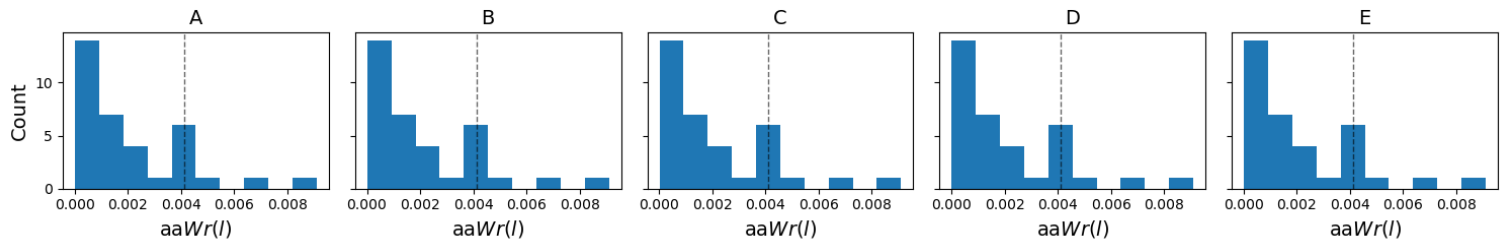
### 8bg9 (1-37): Aducanumab (3-7) epitope



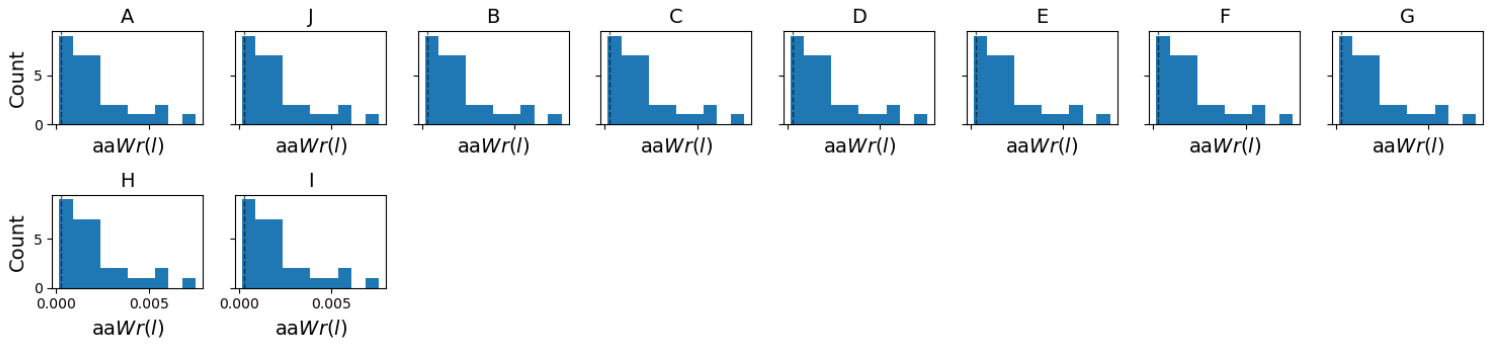
### 8eze (1-42): Aducanumab (3-7) epitope



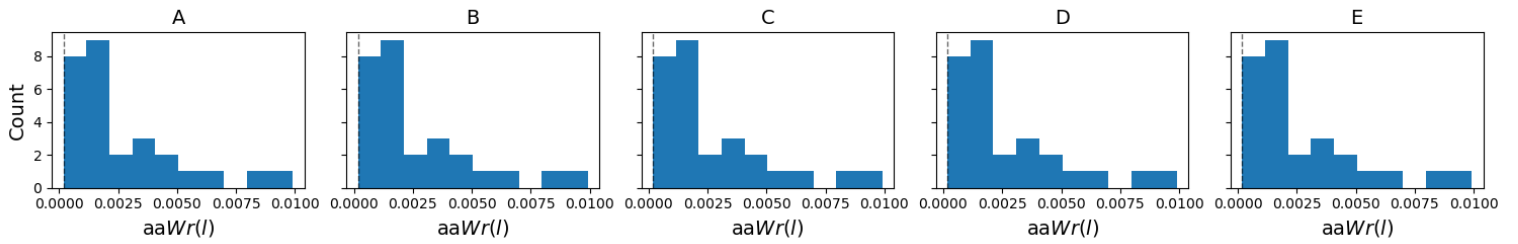
### 8olg (1-39): Aducanumab (3-7) epitope



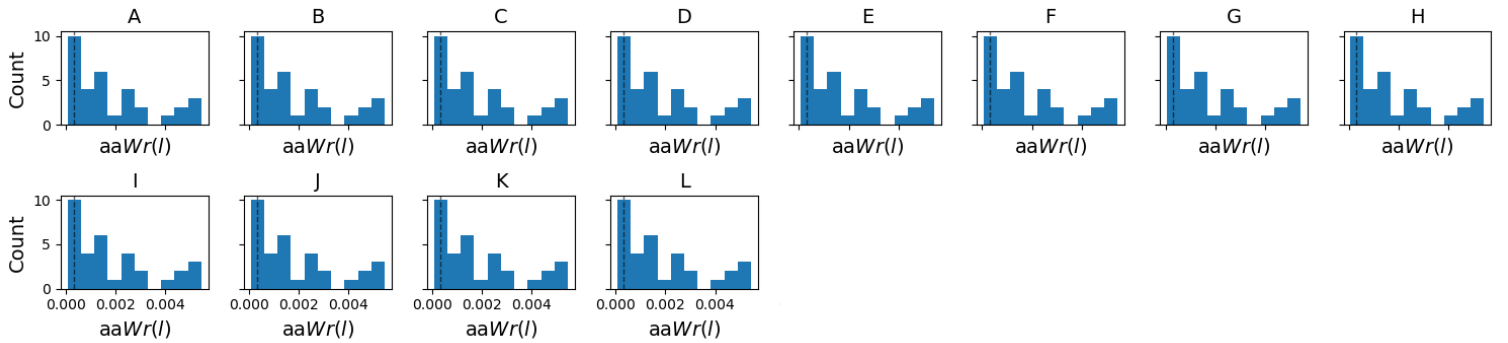
### 80ln (1-36): Aducanumab (3-7) epitope



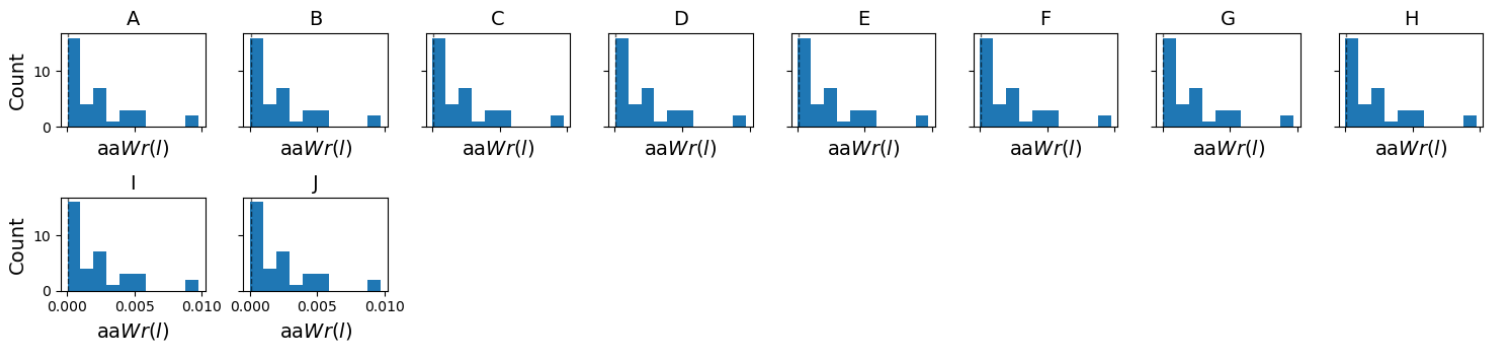
### 80lq (2-33): Aducanumab (3-7) epitope



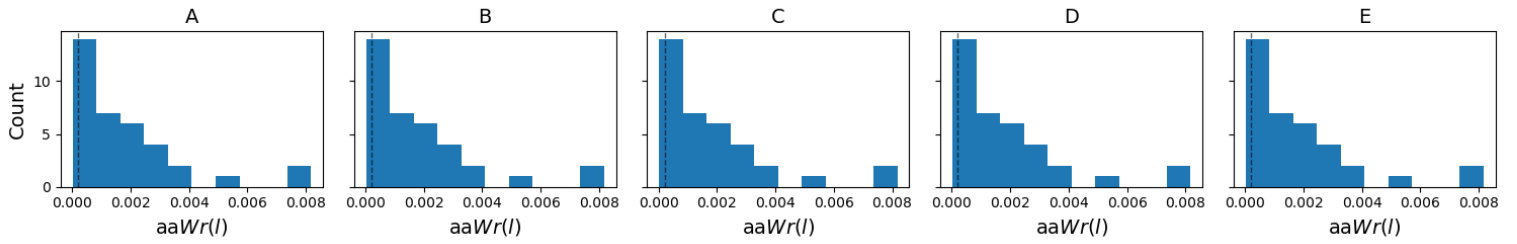
### 80t4 (1-37): Aducanumab (3-7) epitope



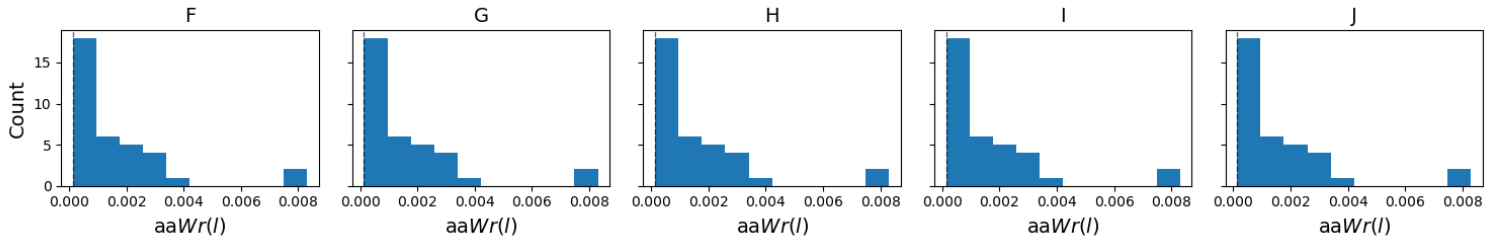
### 80vk (1-40): Aducanumab (3-7) epitope



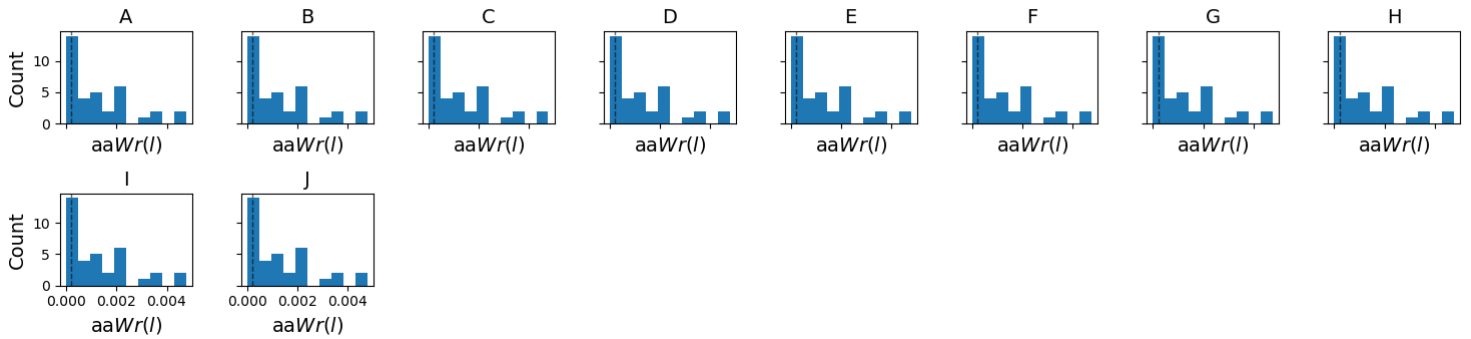
8owd (1-40): Aducanumab (3-7) epitope



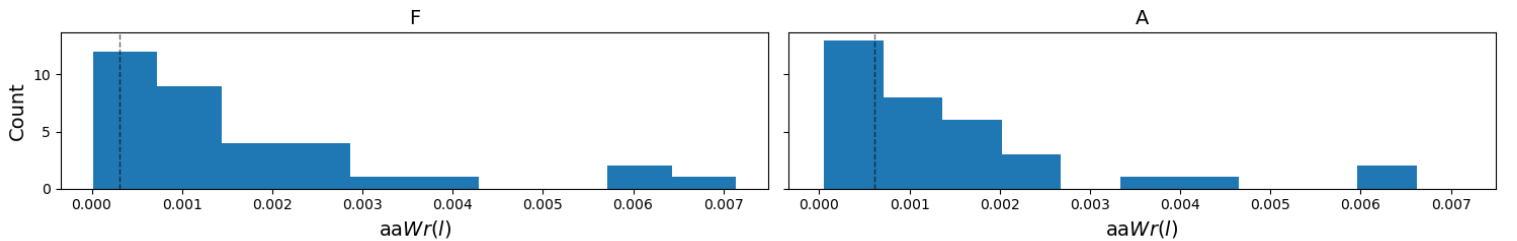
8owe (1-40): Aducanumab (3-7) epitope



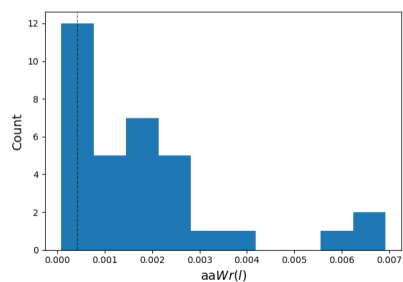
8owk (1-40): Aducanumab (3-7) epitope



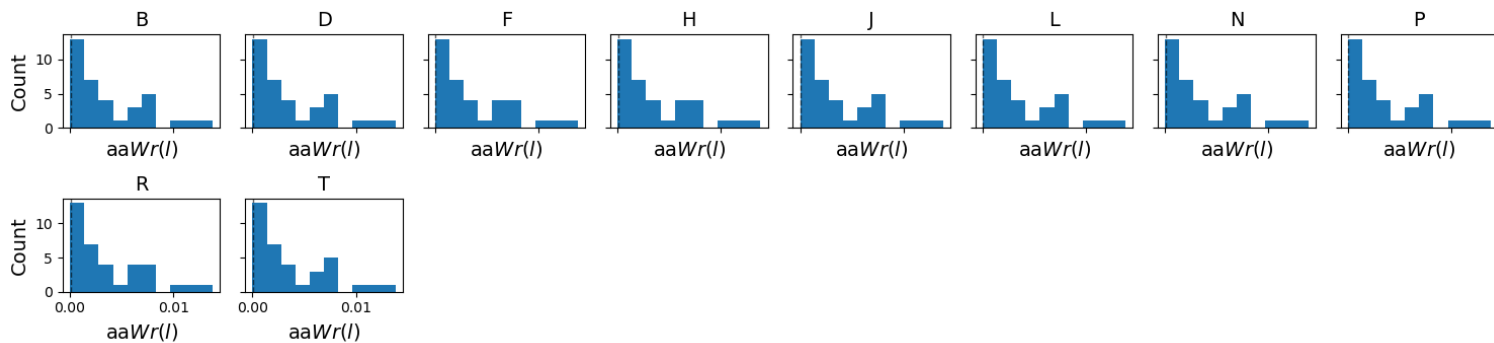
8qn6 (1-38): Aducanumab (3-7) epitope



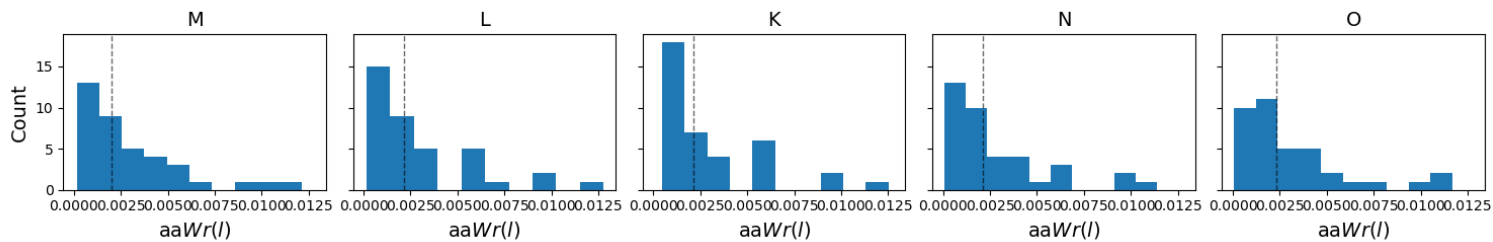
### 8qn7 (1-38): Aducanumab (3-7) epitope

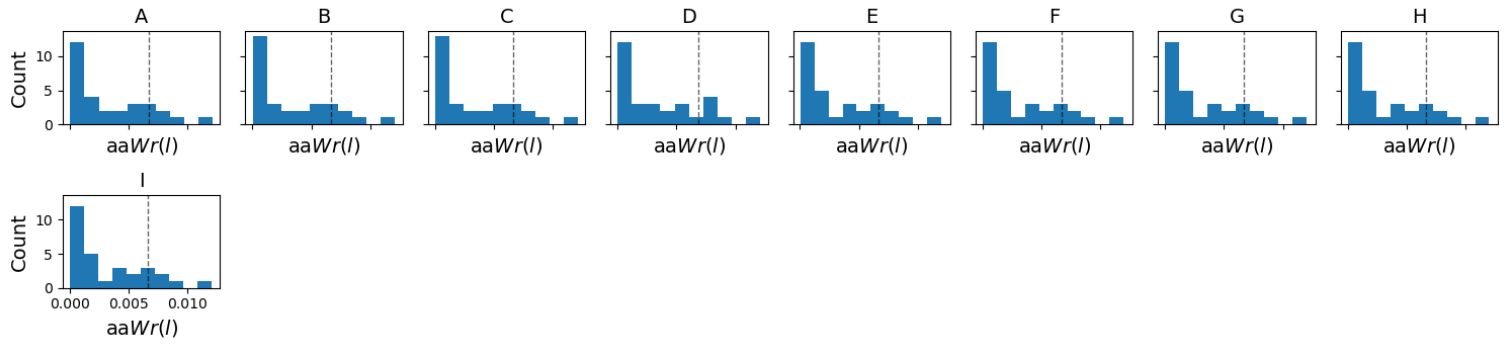
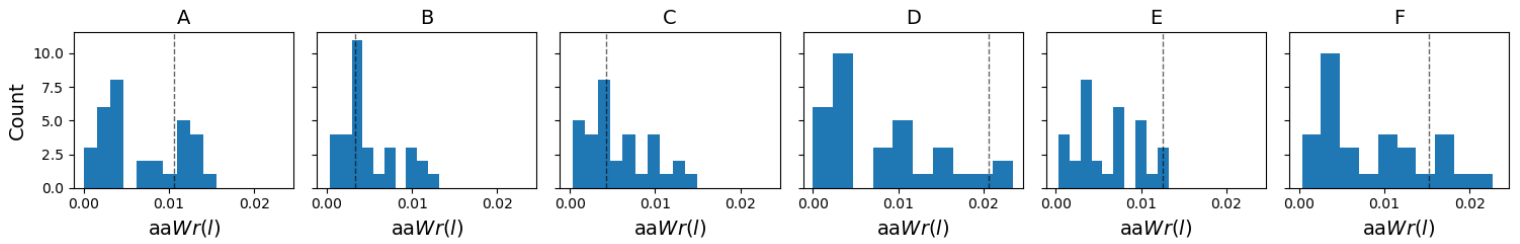
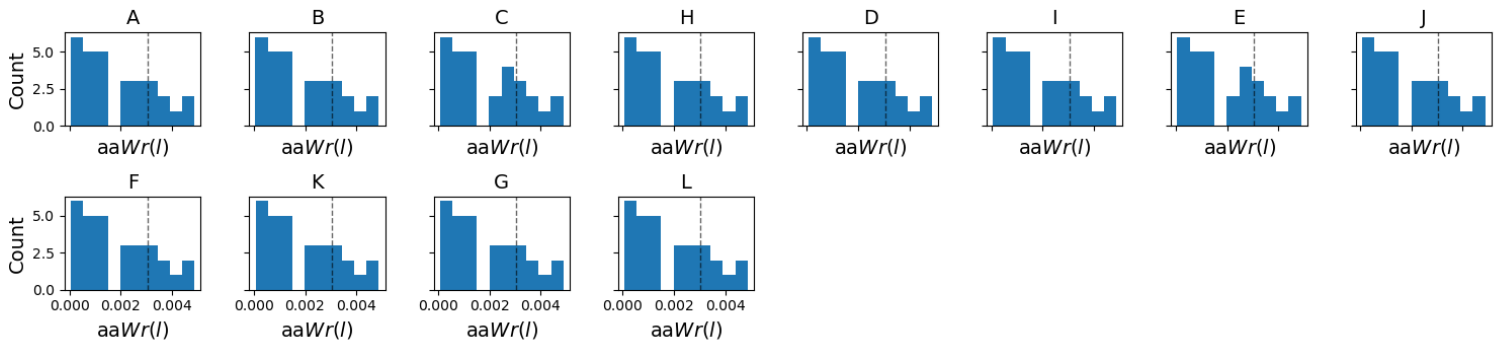
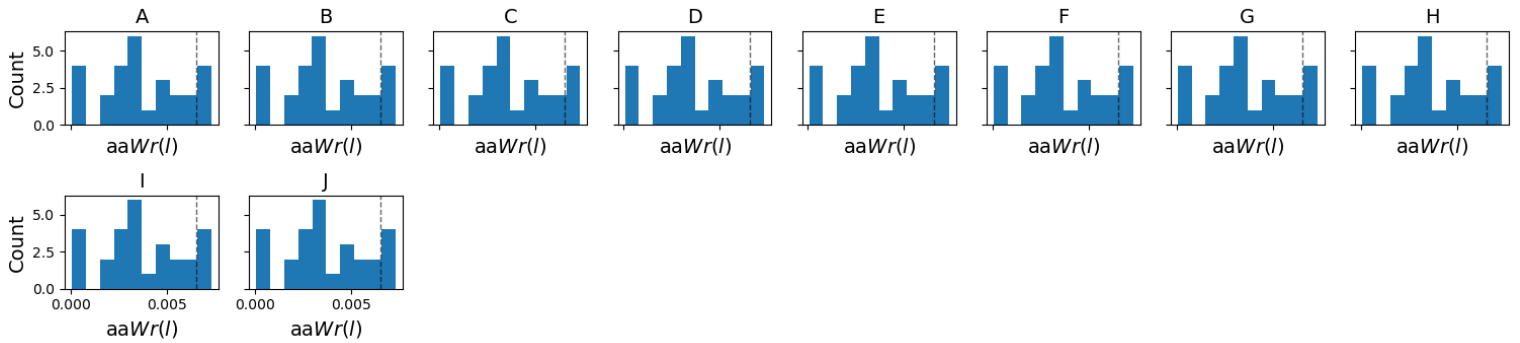


### 8sel (1-40): Aducanumab (3-7) epitope

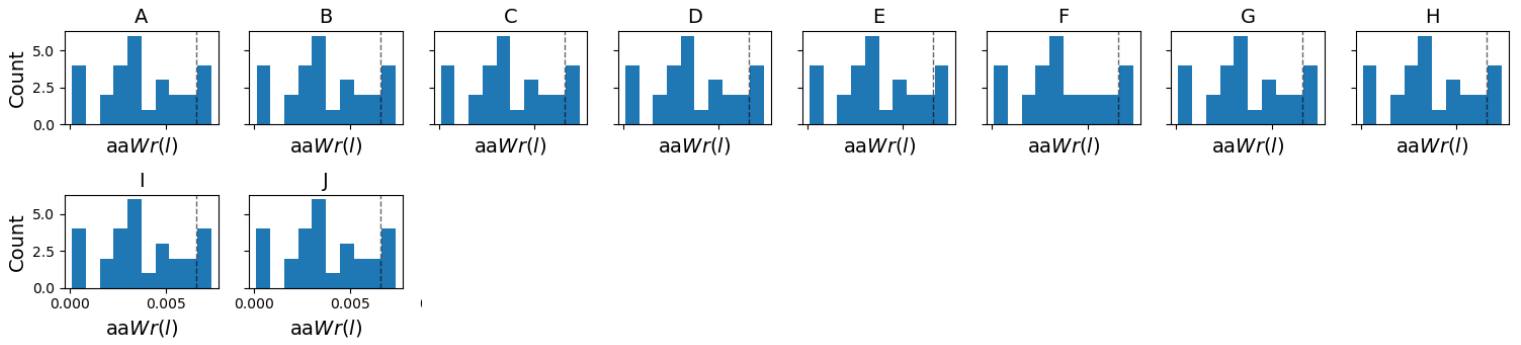


### 9jb2 (1-42): Aducanumab (3-7) epitope

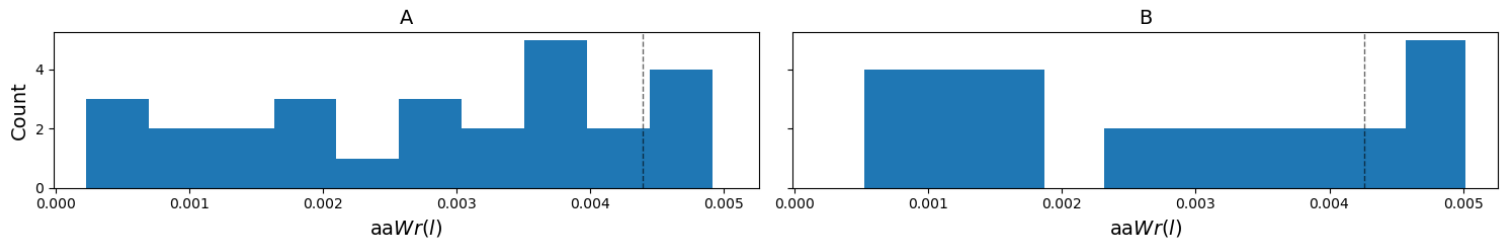


**d****2m4j (1-40): Donanemab (3-13) epitope****2nao (1-42): Donanemab (3-13) epitope****6shs (1-40): Donanemab (3-13) epitope****8bfa (1-38): Donanemab (3-13) epitope**

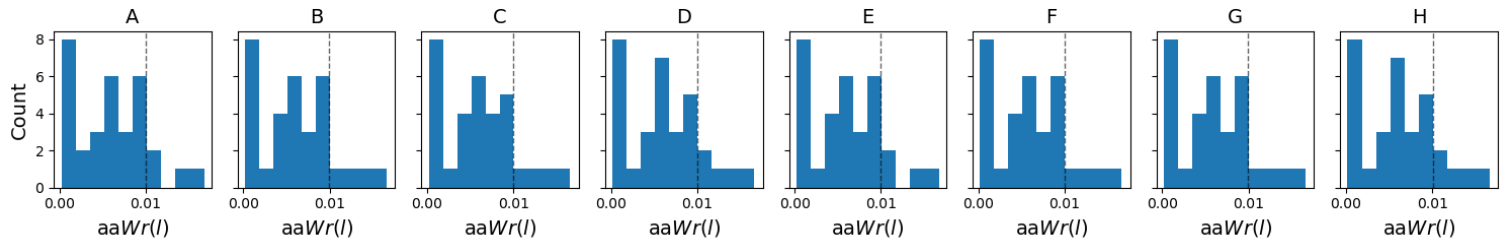
8bfb (1-38): Donanemab (3-13) epitope



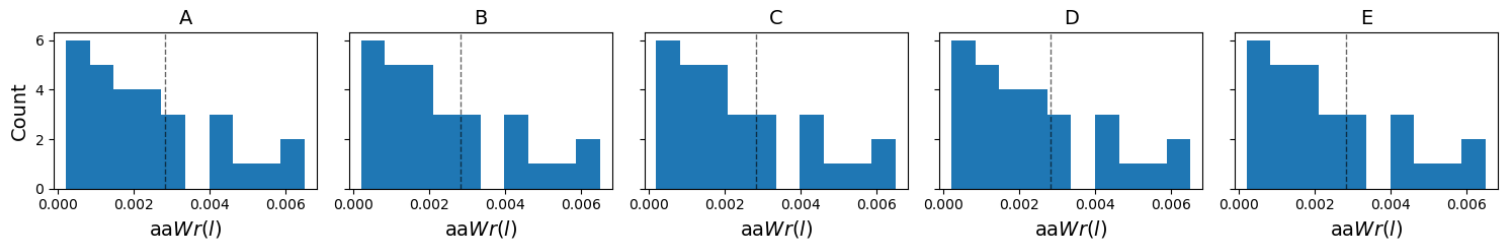
8bg9 (1-37): Donanemab (3-13) epitope



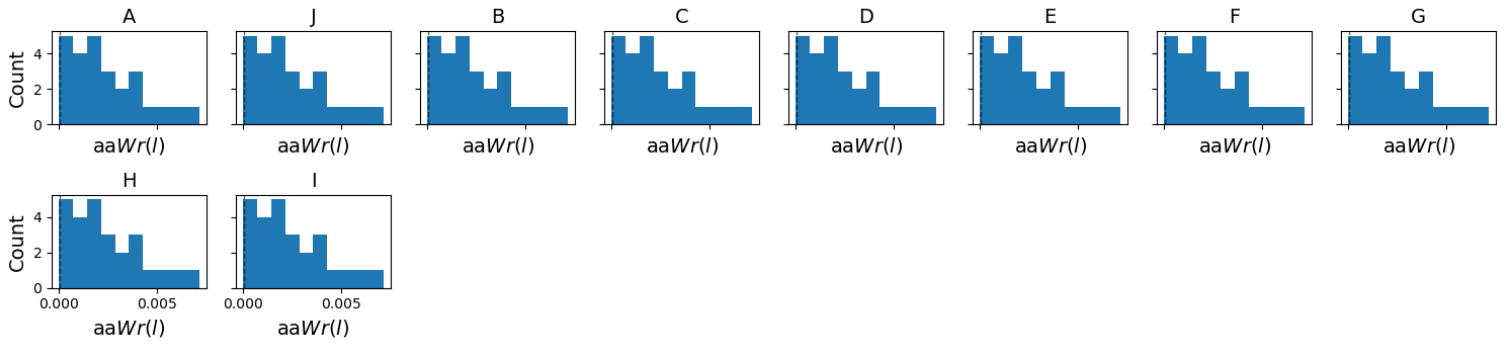
8eze (1-42): Donanemab (3-13) epitope



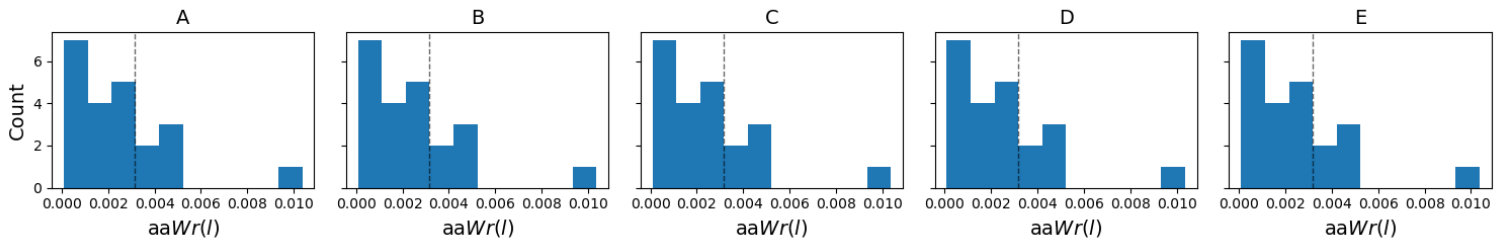
8olg (1-39): Donanemab (3-13) epitope



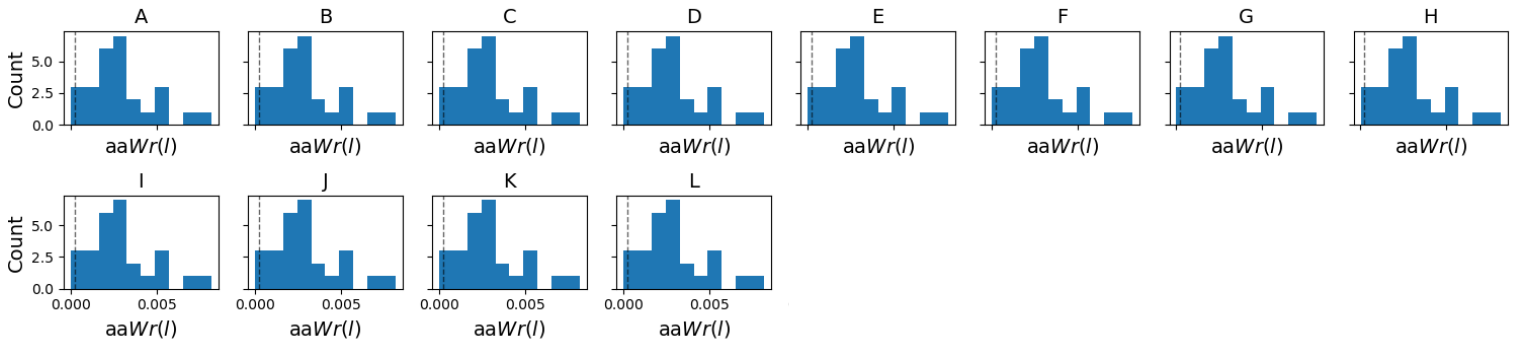
### 80ln (1-36): Donanemab (3-13) epitope



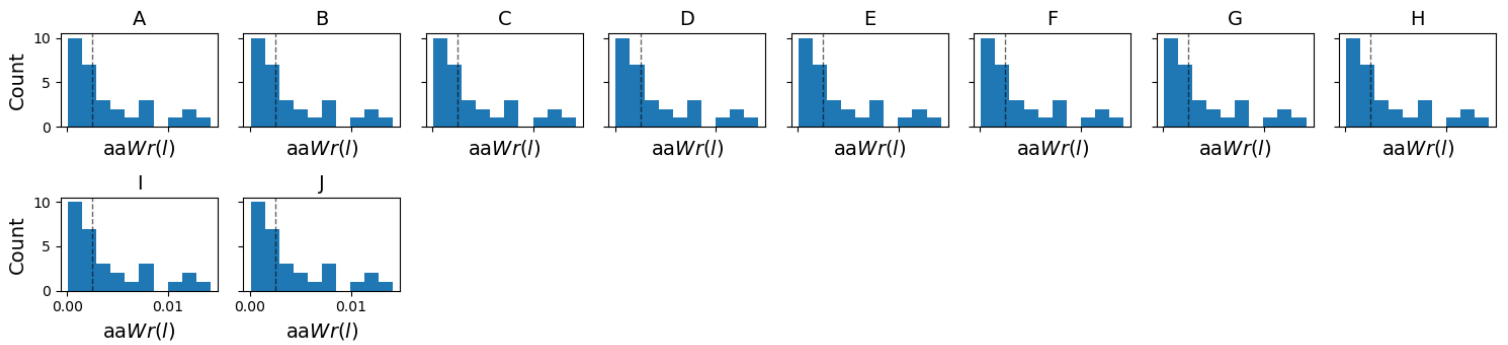
### 80lq (2-33): Donanemab (3-13) epitope



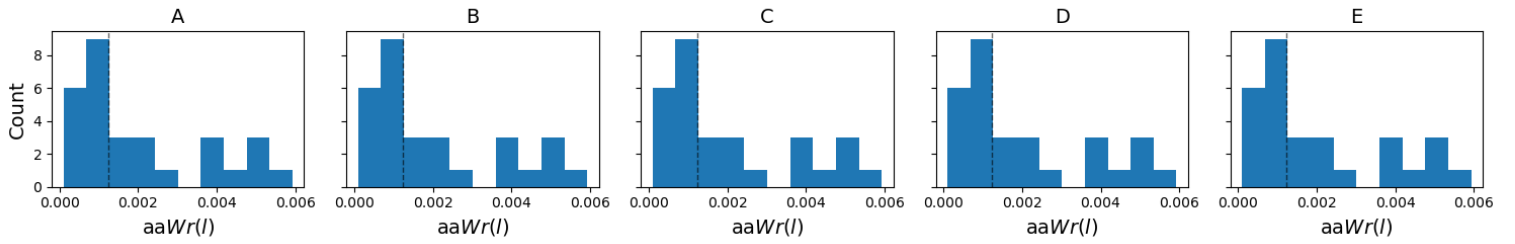
### 80t4 (1-37): Donanemab (3-13) epitope



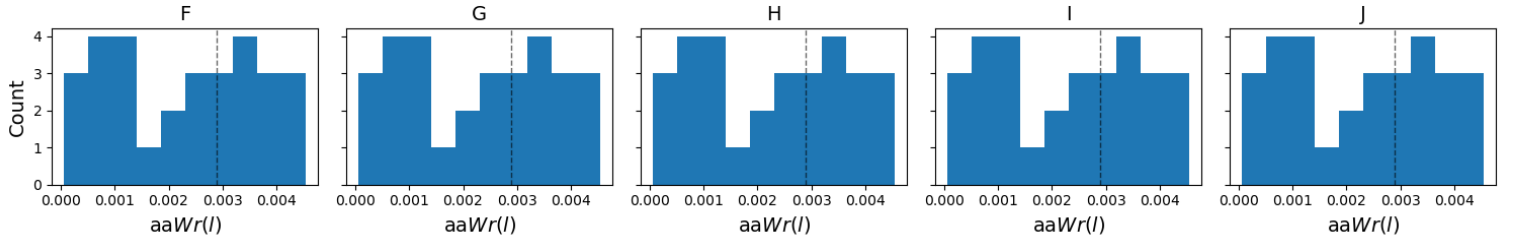
### 80vk (1-40): Donanemab (3-13) epitope



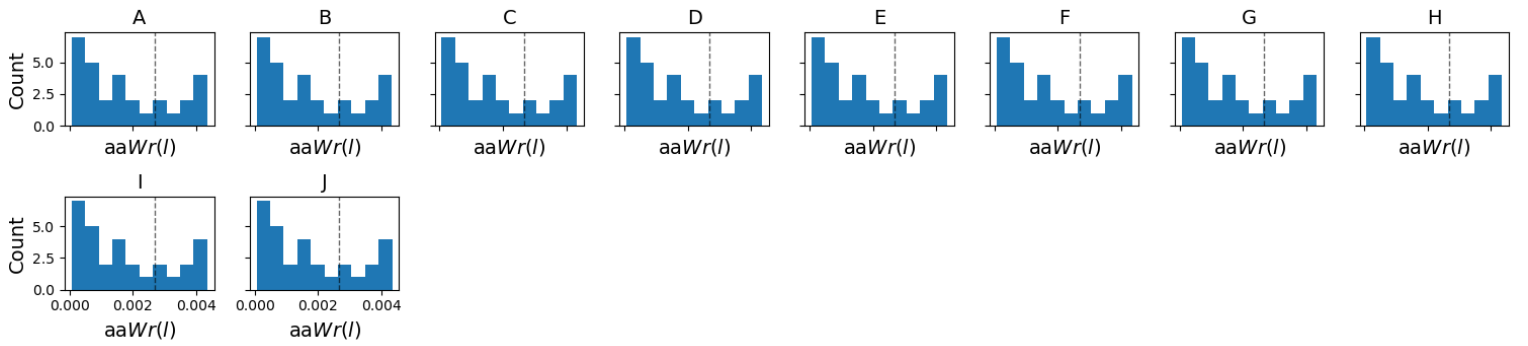
### 8owd (1-40): Donanemab (3-13) epitope



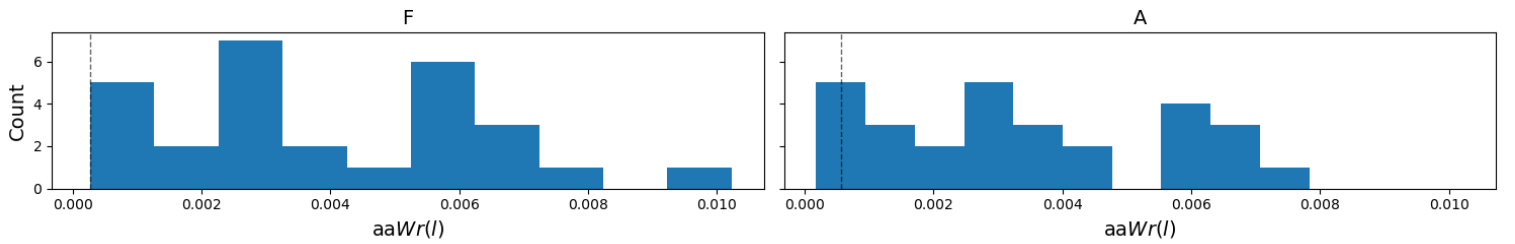
### 8owe (1-40): Donanemab (3-13) epitope



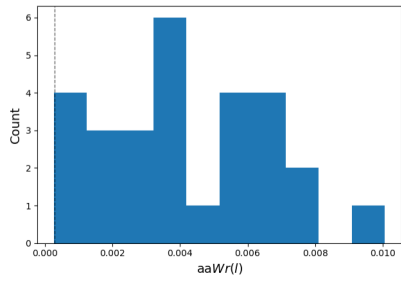
### 8owk (1-40): Donanemab (3-13) epitope



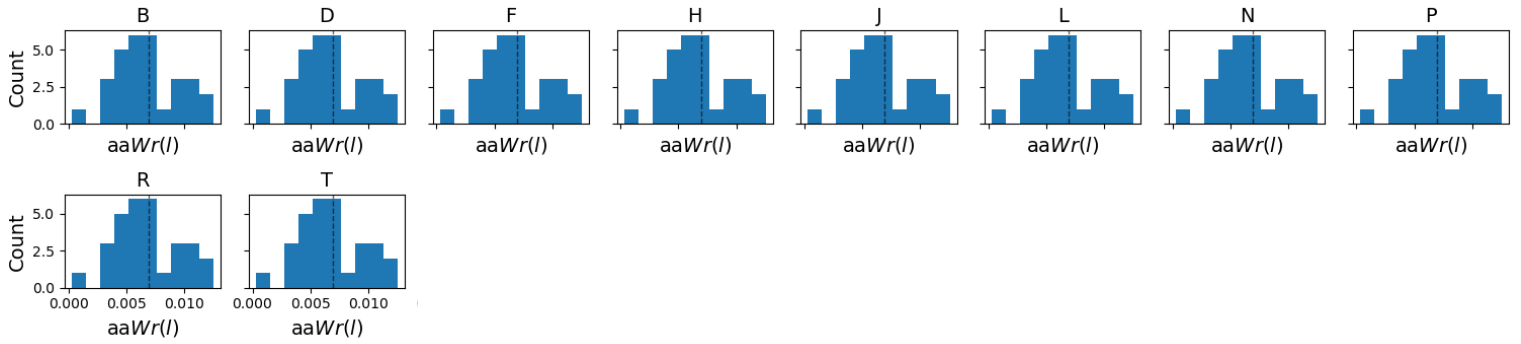
### 8qn6 (1-38): Donanemab (3-13) epitope



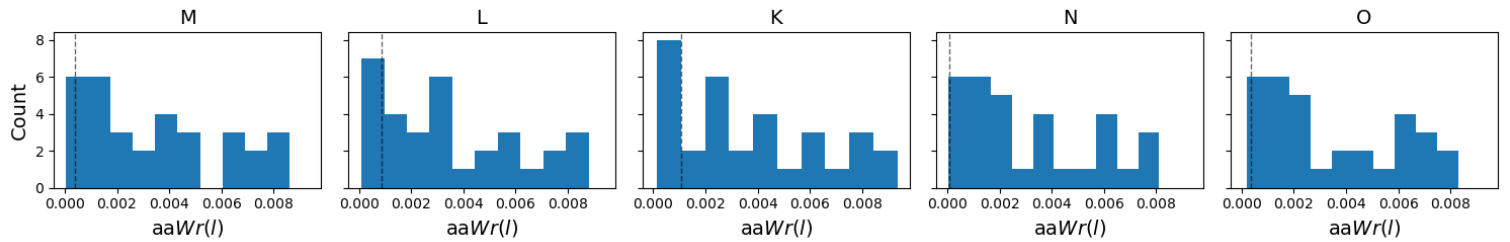
8qn7 (1-38): Donanemab (3-13) epitope

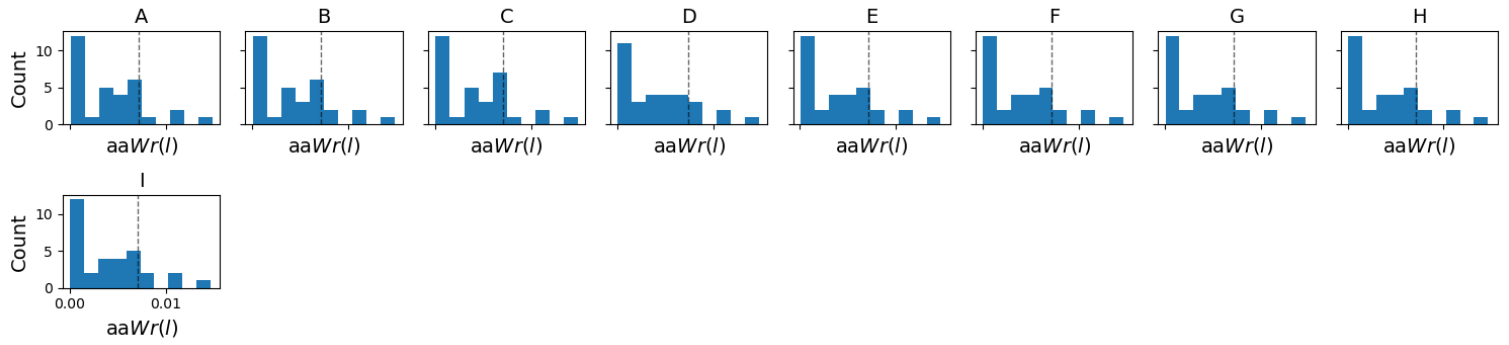
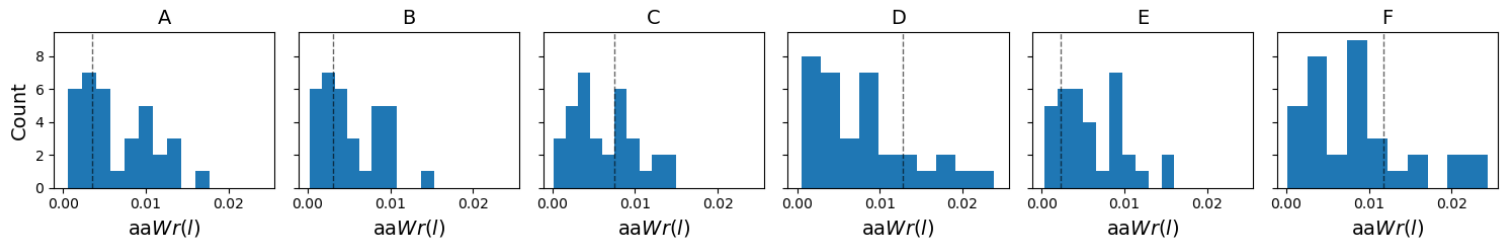
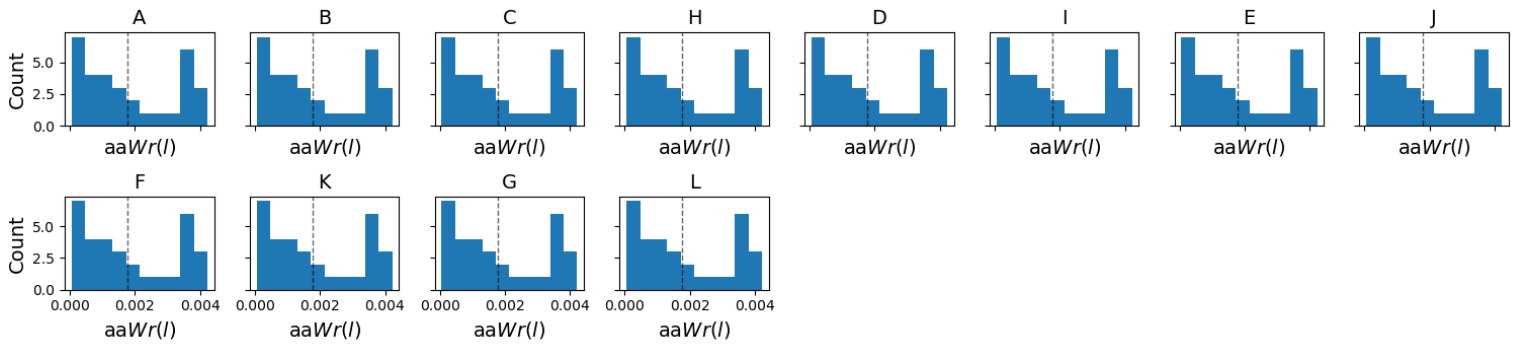
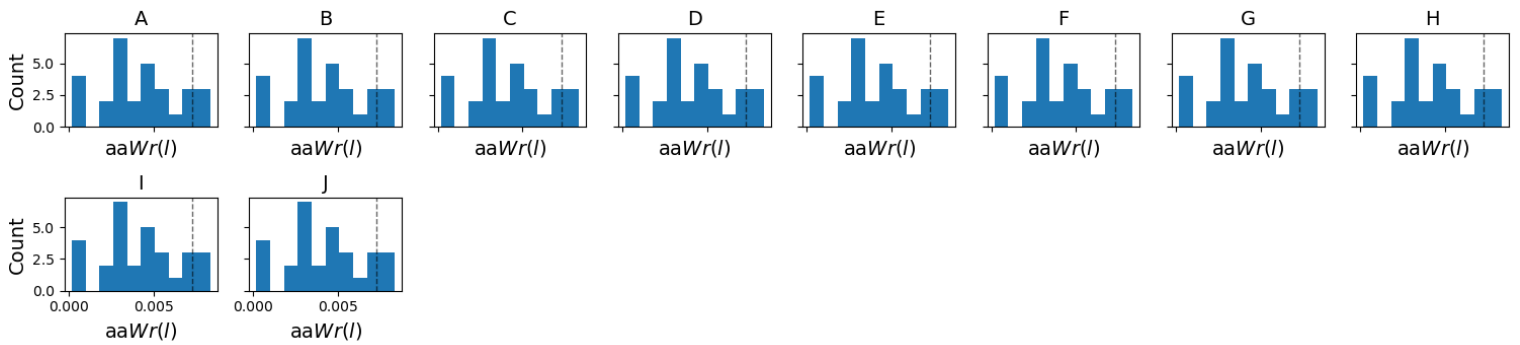


8sel (1-40): Donanemab (3-13) epitope

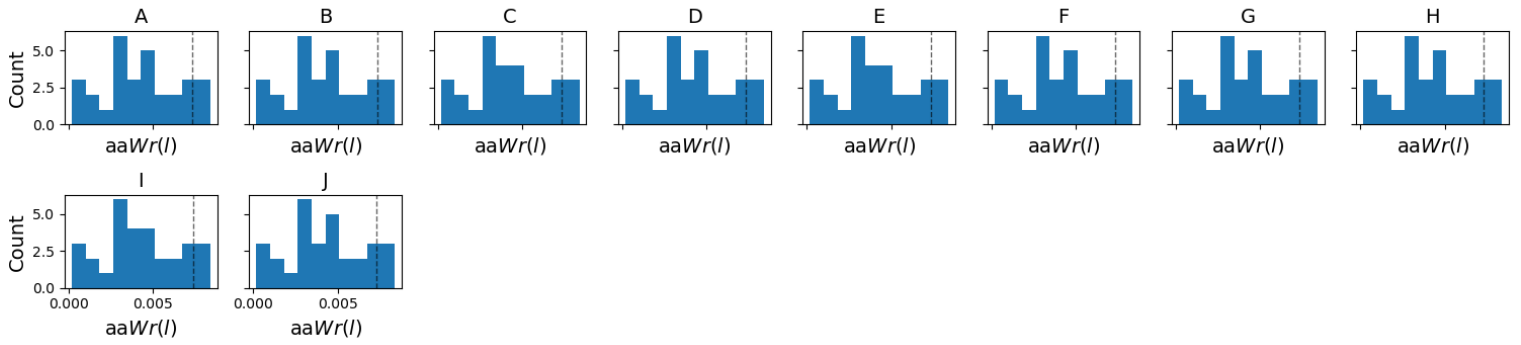


9jb2 (1-42): Donanemab (3-13) epitope

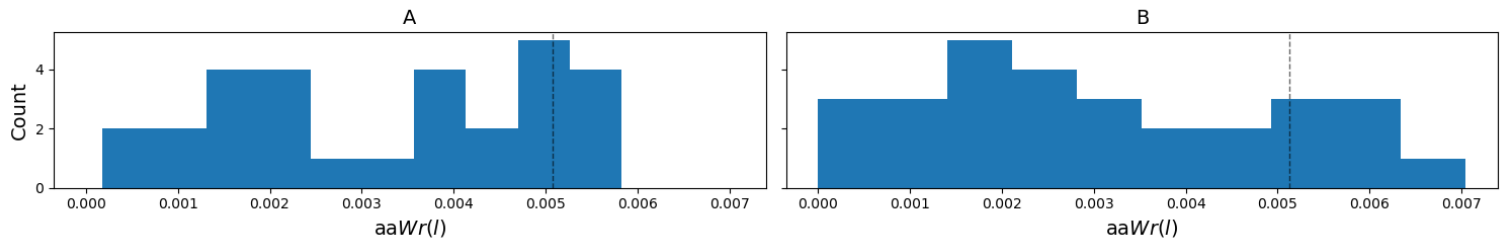


**e****2m4j (1-40): Gantenerumab (3-11) epitope****2nao (1-42): Gantenerumab (3-11) epitope****6shs (1-40): Gantenerumab (3-11) epitope****8bfa (1-38): Gantenerumab (3-11) epitope**

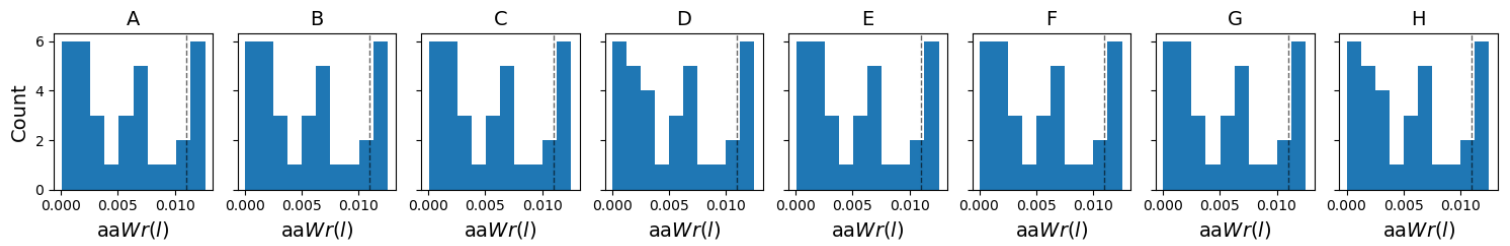
### 8bfb (1-38): Gantenerumab (3-11) epitope



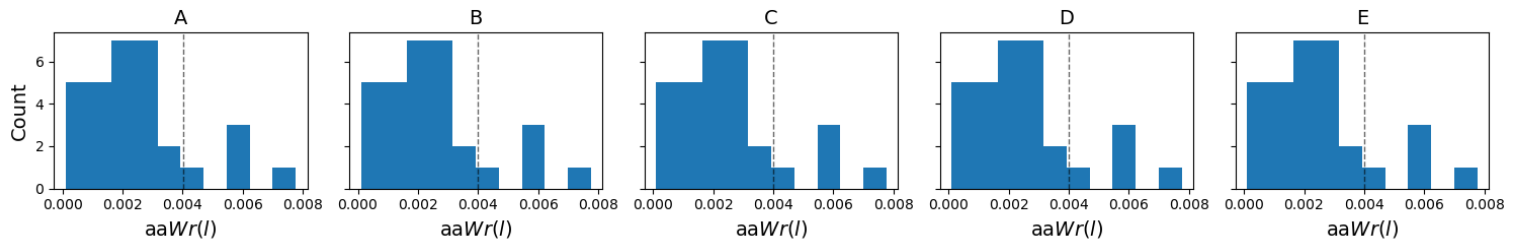
### 8bg9 (1-37): Gantenerumab (3-11) epitope



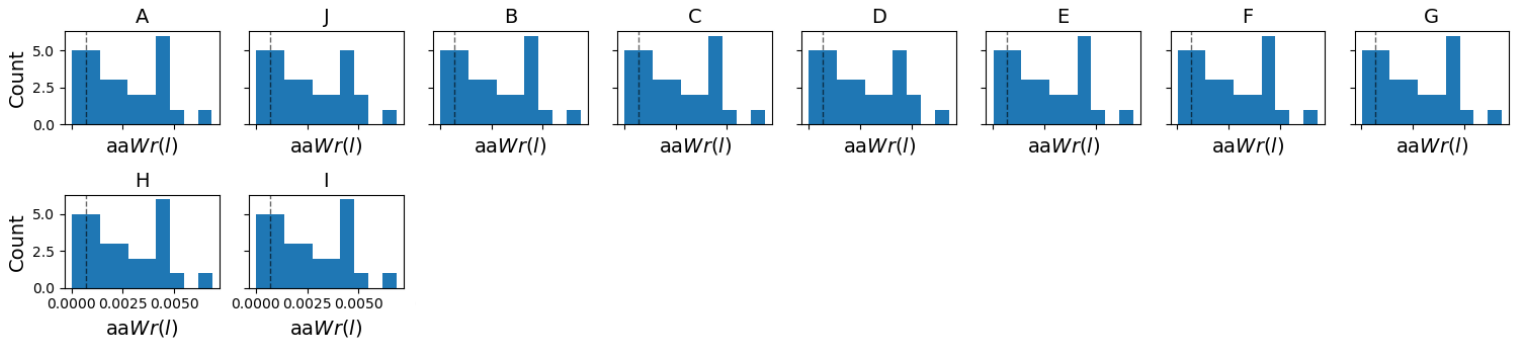
### 8eze (1-42): Gantenerumab (3-11) epitope



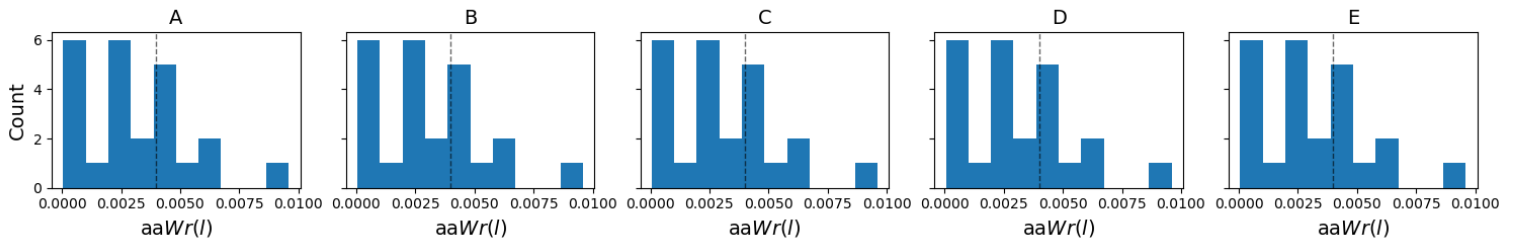
### 8olg (1-39): Gantenerumab (3-11) epitope



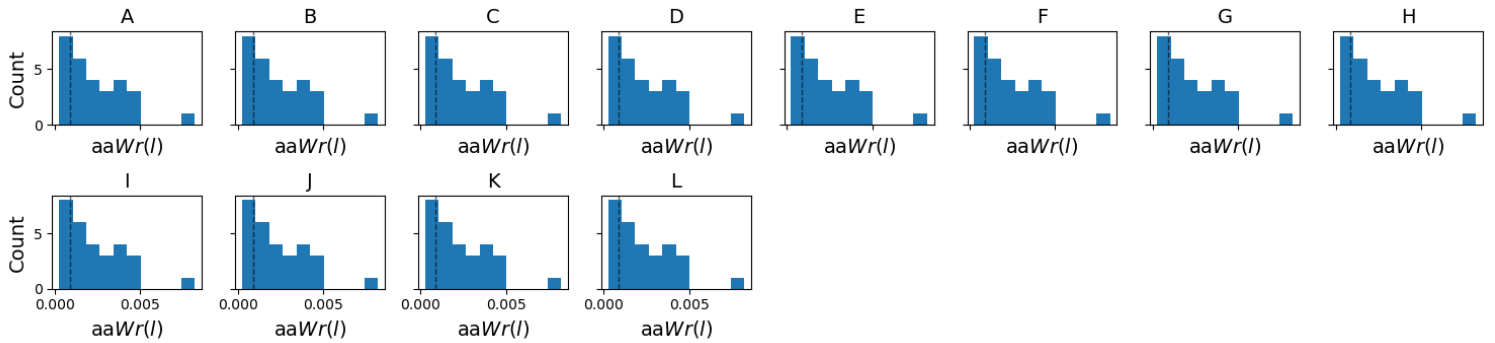
### 80ln (1-36): Gantenerumab (3-11) epitope



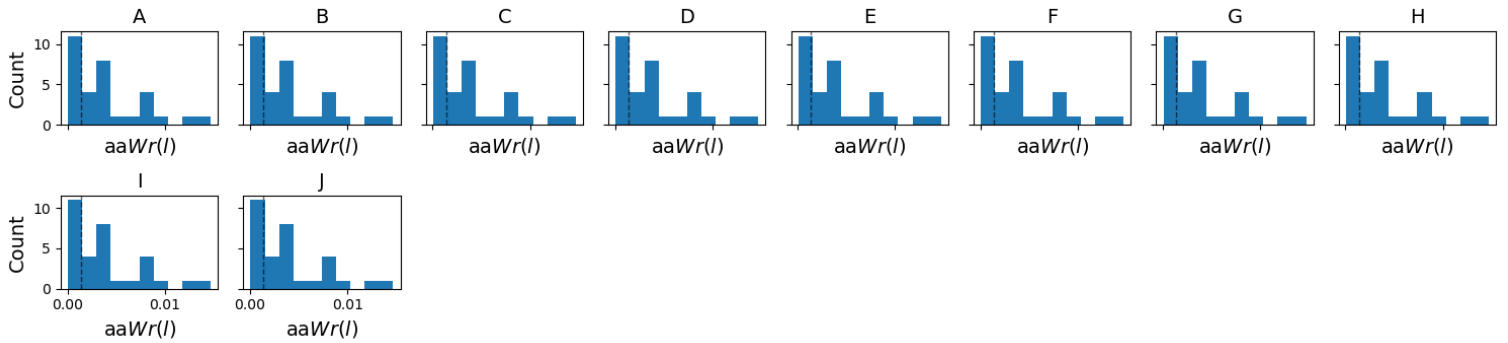
### 80lq (2-33): Gantenerumab (3-11) epitope



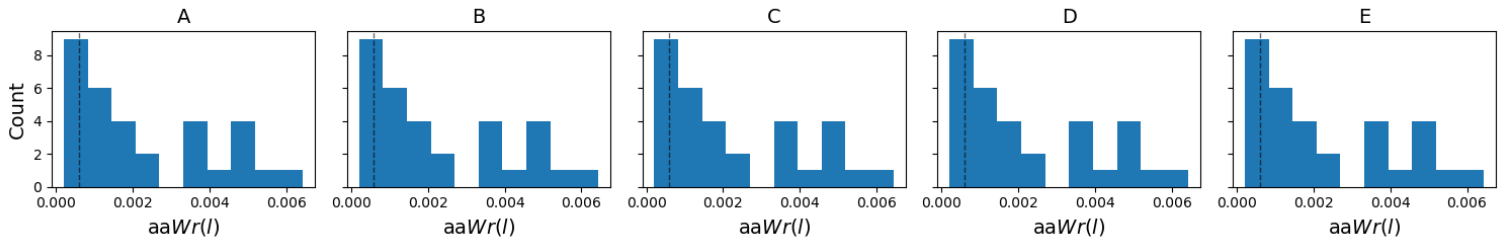
### 80t4 (1-37): Gantenerumab (3-11) epitope



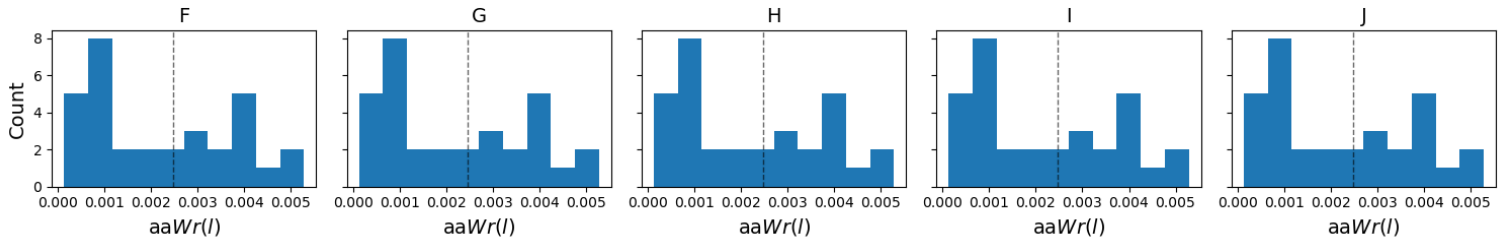
### 80vk (1-40): Gantenerumab (3-11) epitope



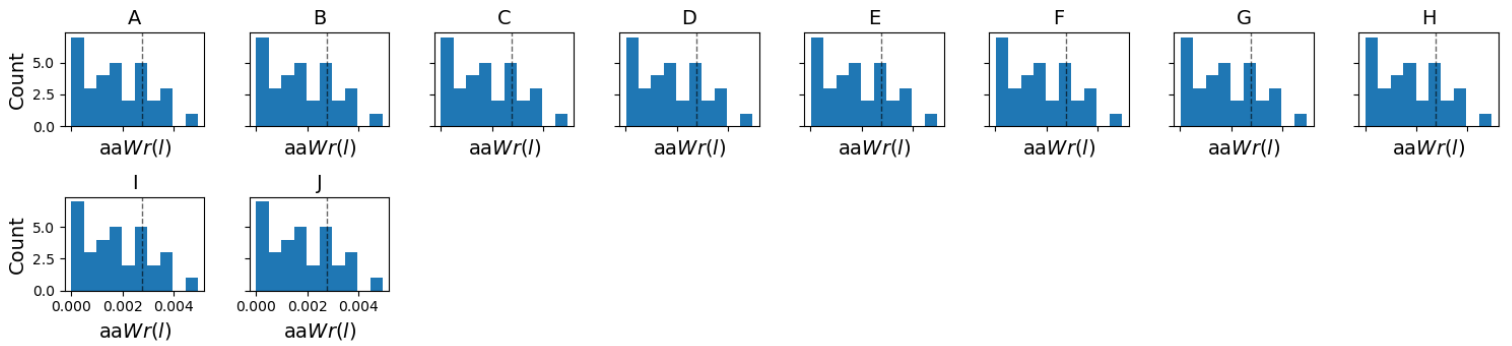
### 8owd (1-40): Gantenerumab (3-11) epitope



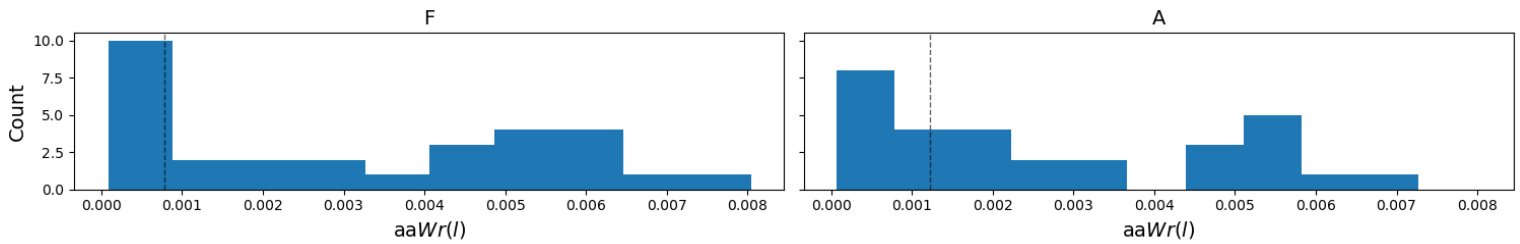
### 8owe (1-40): Gantenerumab (3-11) epitope



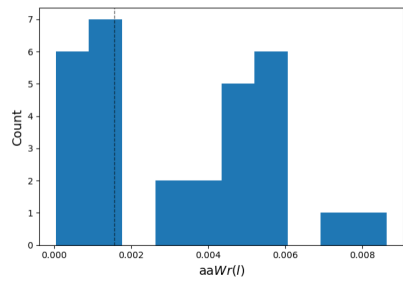
### 8owk (1-40): Gantenerumab (3-11) epitope



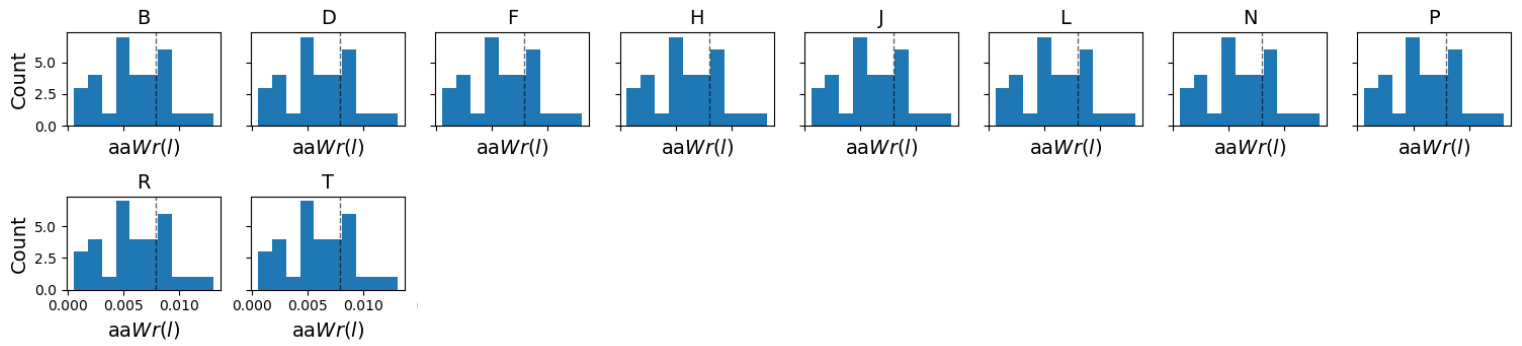
### 8qn6 (1-38): Gantenerumab (3-11) epitope



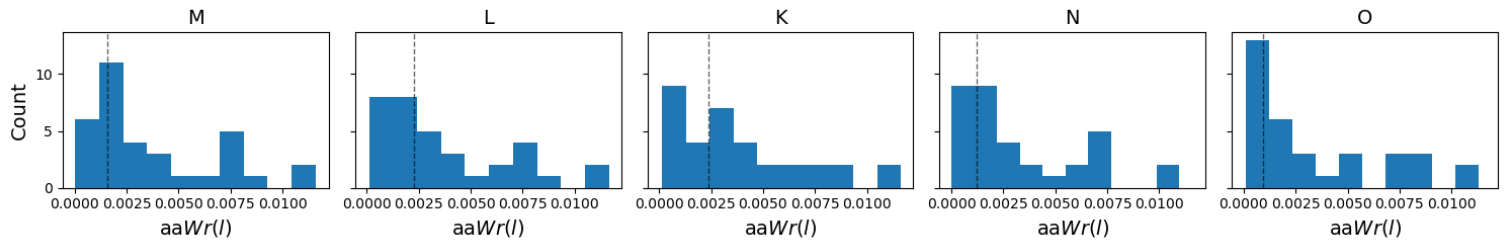
### 8qn7 (1-38): Gantenerumab (3-11) epitope

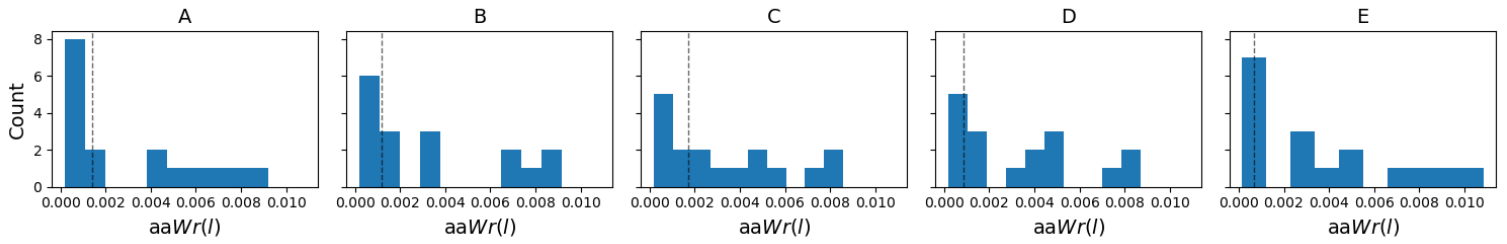
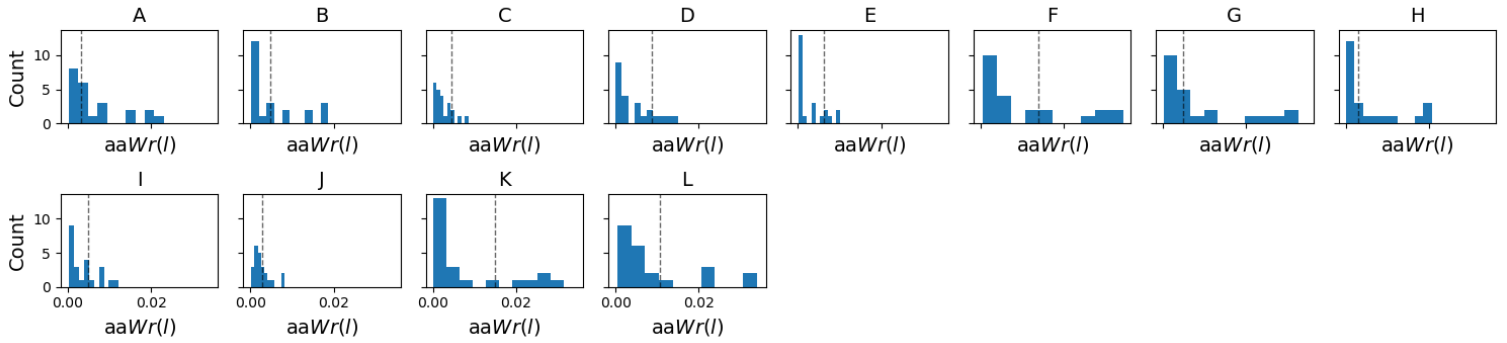
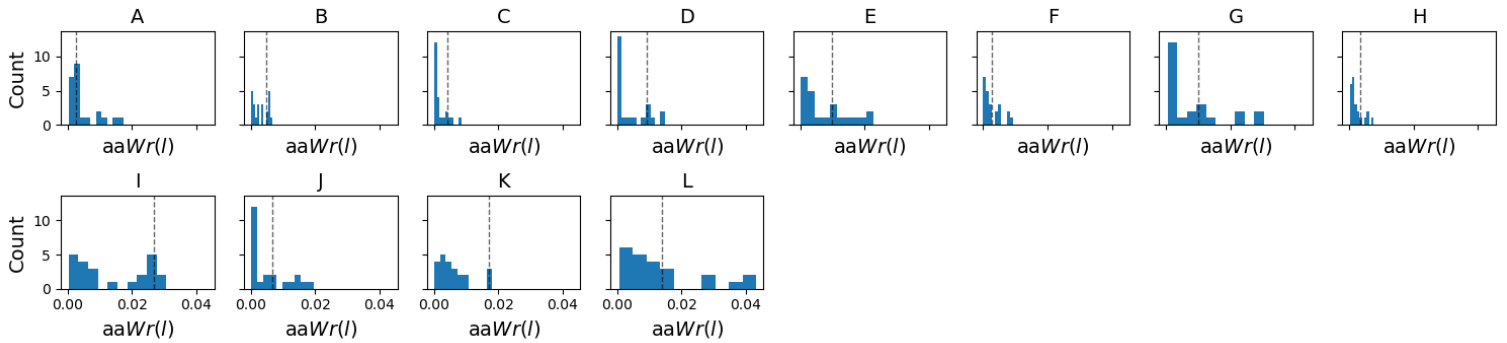
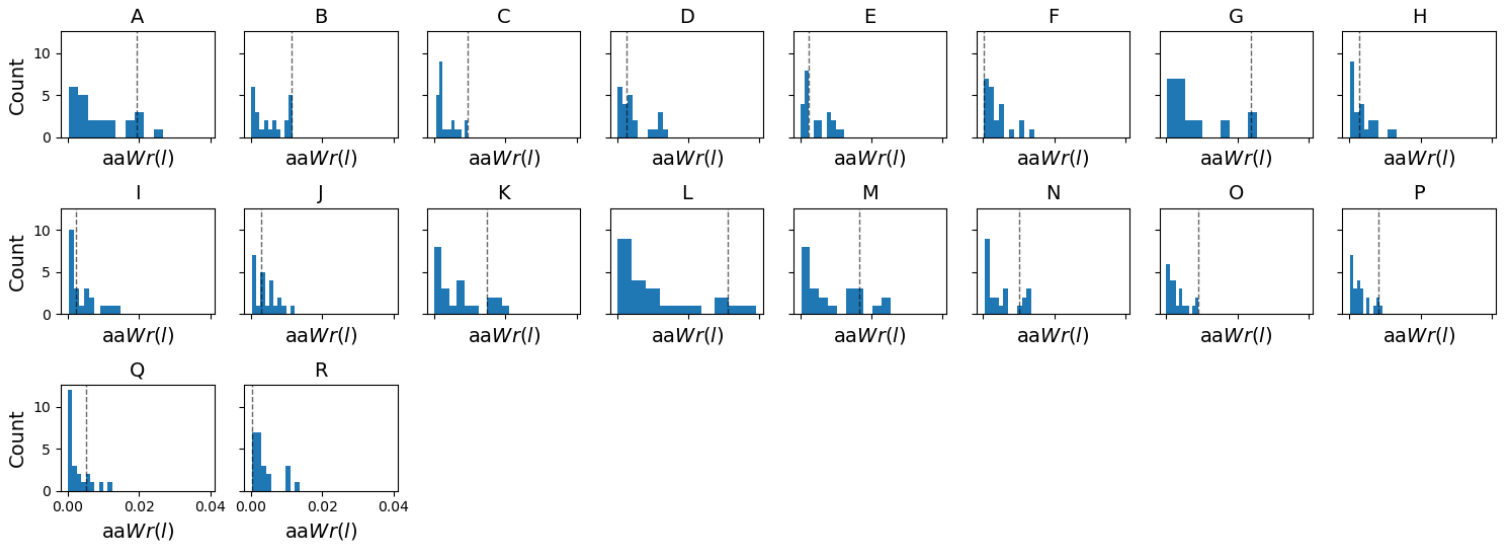


### 8sel (1-40): Gantenerumab (3-11) epitope

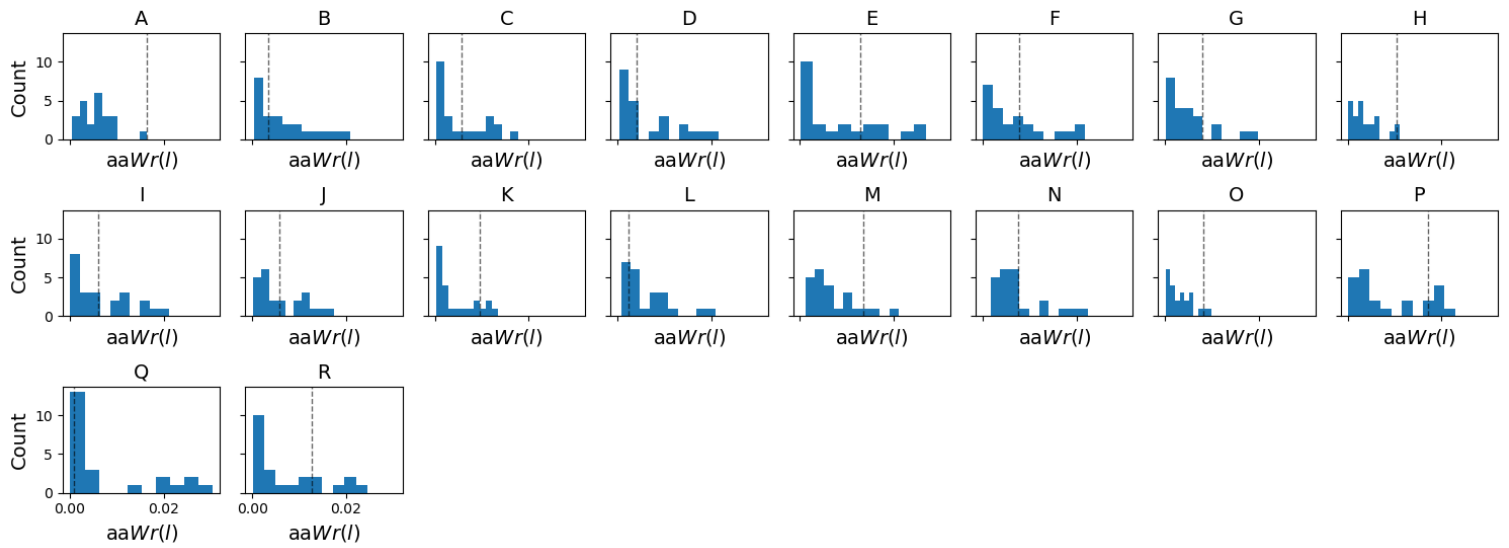


### 9jb2 (1-42): Gantenerumab (3-11) epitope

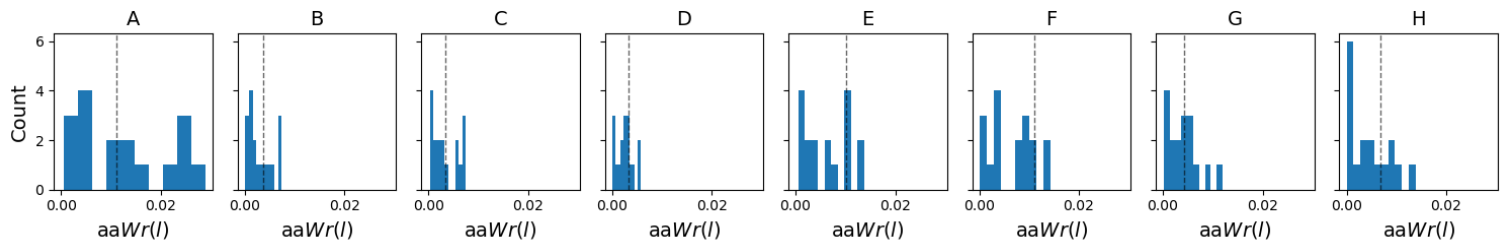


**f****2beg (17-42): Gantenerumab (18-27) epitope****2lmn (9-40): Gantenerumab (18-27) epitope****2lmo (9-40): Gantenerumab (18-27) epitope****2lmp (9-40): Gantenerumab (18-27) epitope**

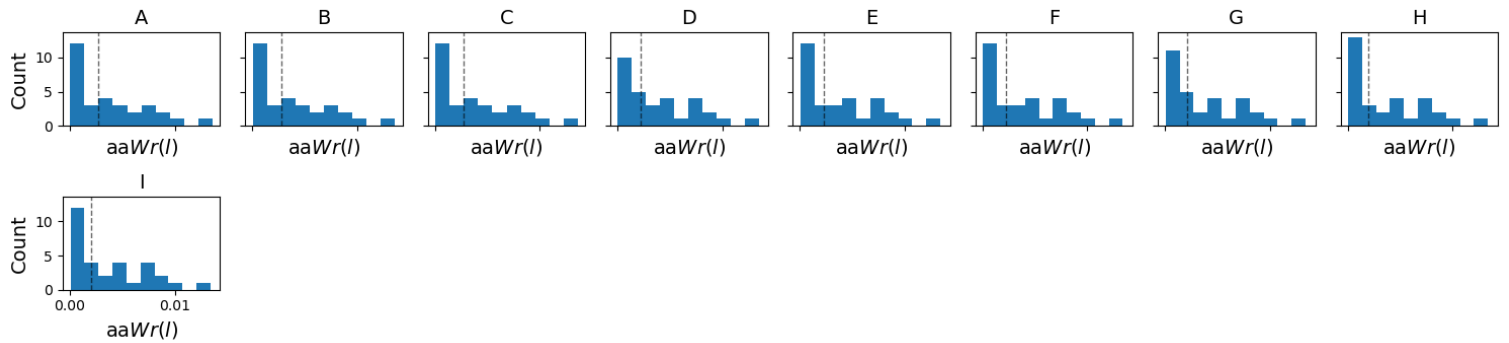
### 2Imq (9-40): Gantenerumab (18-27) epitope



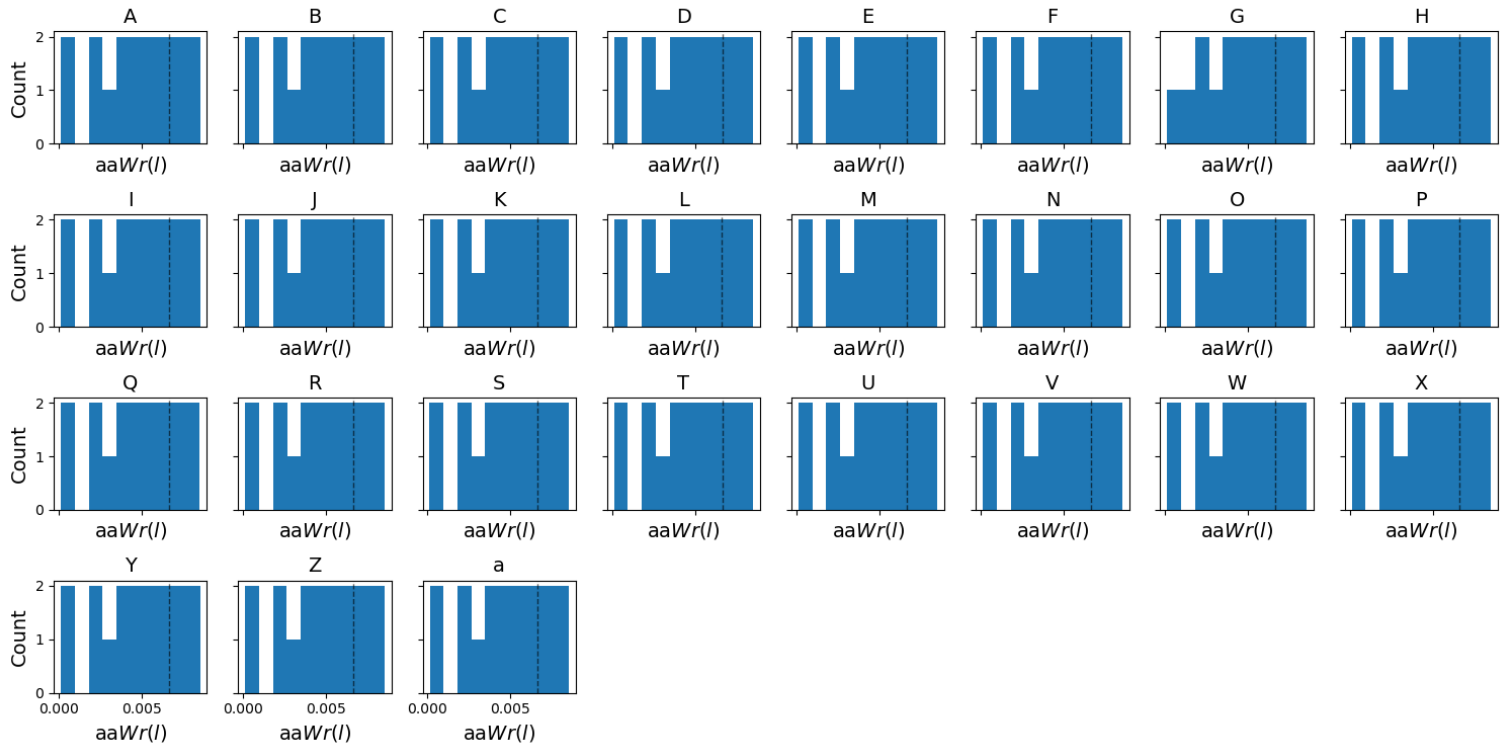
### 2Inq (15-40): Gantenerumab (18-27) epitope



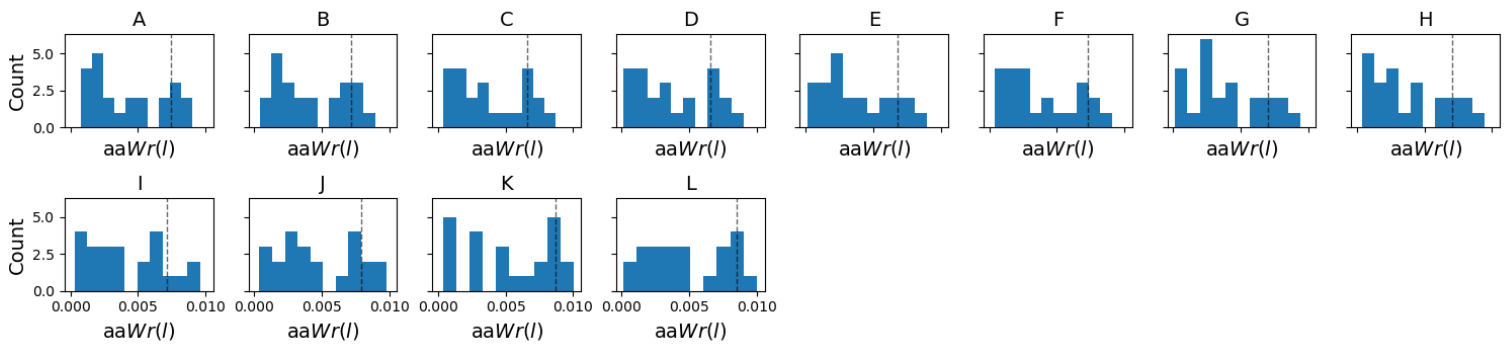
### 2m4j (1-40): Gantenerumab (18-27) epitope



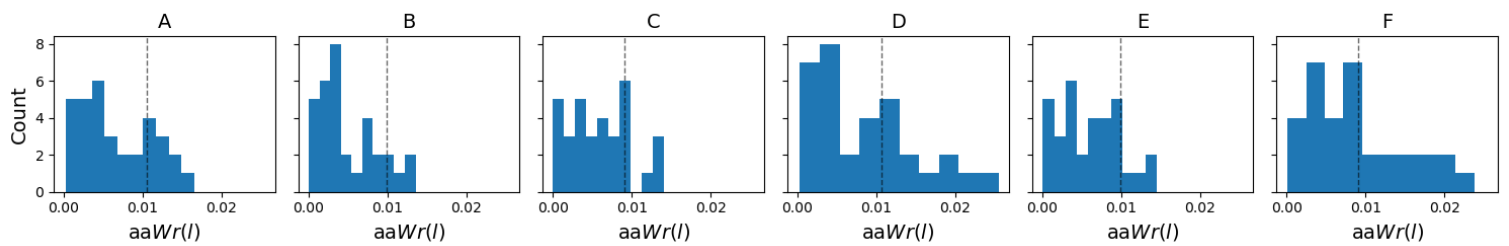
### 2mpz (15-40): Gantenerumab (18-27) epitope



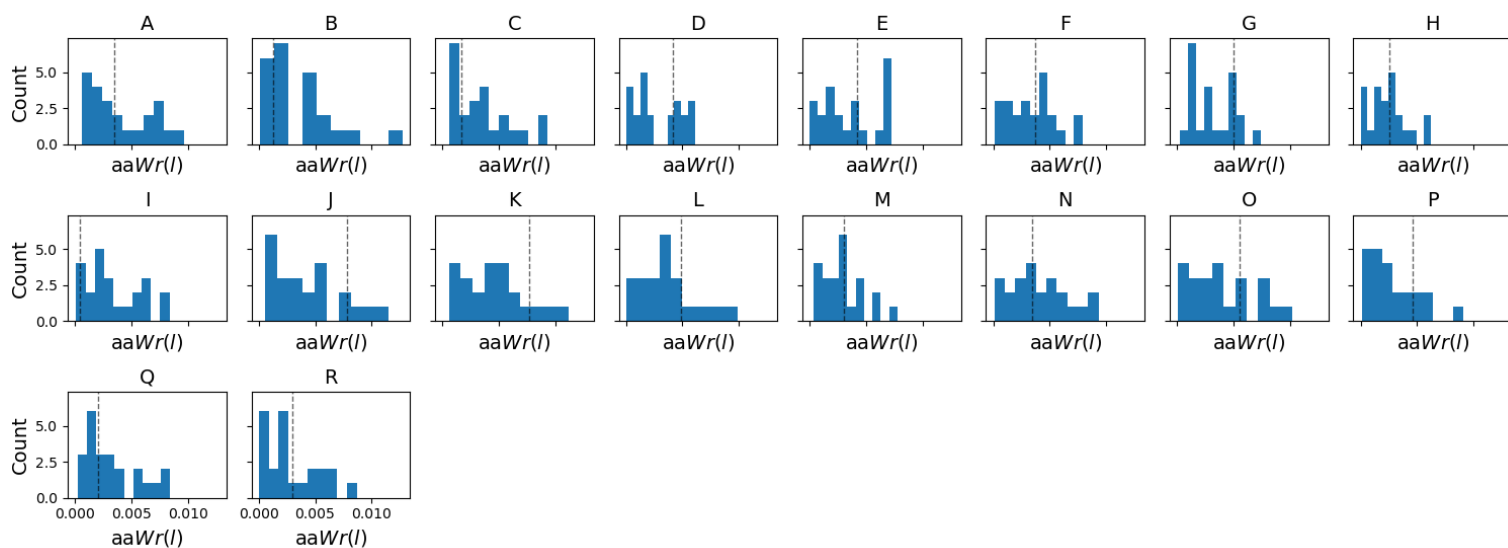
### 2mxu (11-42): Gantenerumab (18-27) epitope



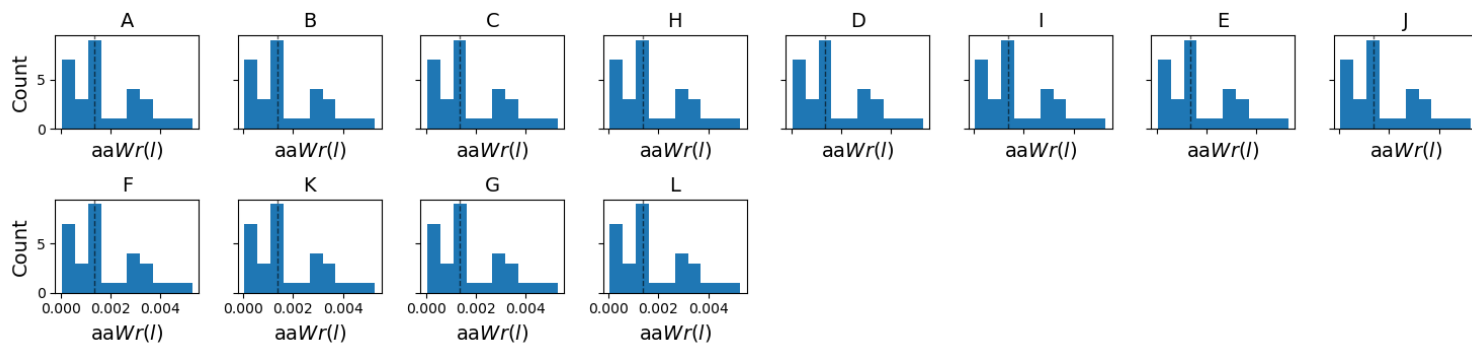
### 2nao (1-42): Gantenerumab (18-27) epitope



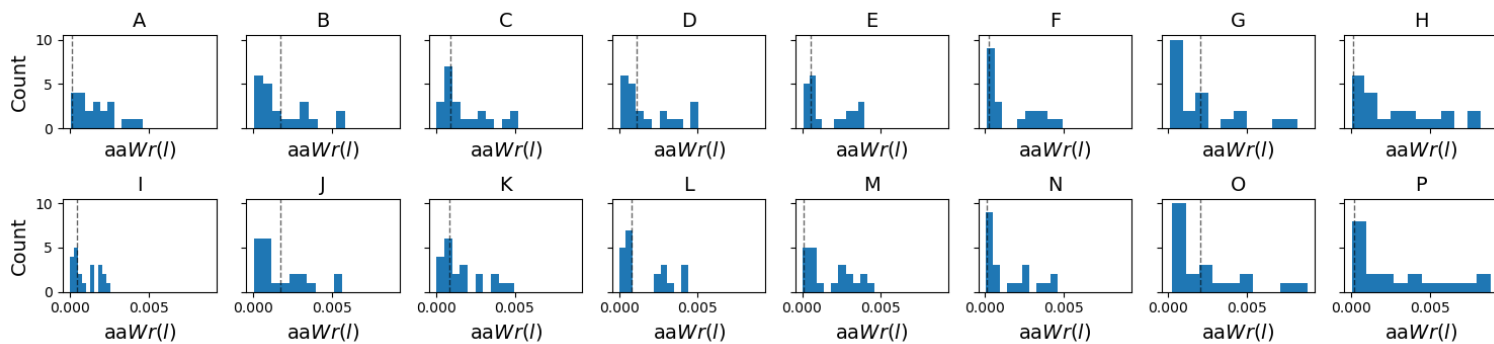
5kk3 (11-42): Gantenerumab (18-27) epitope



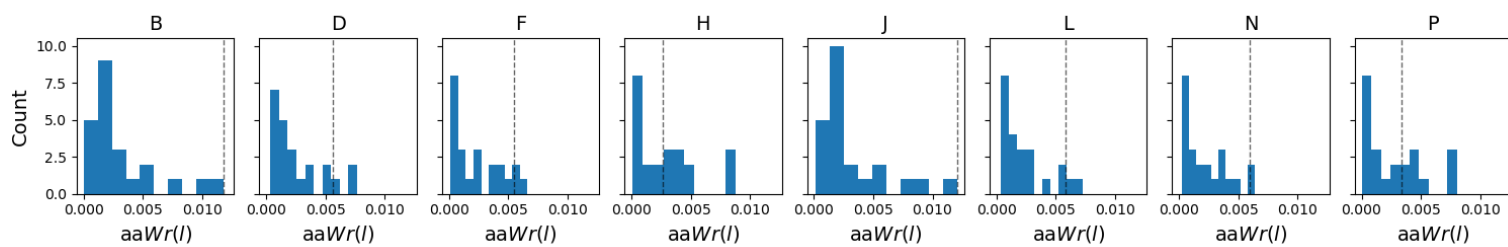
6shs (1-40): Gantenerumab (18-27) epitope



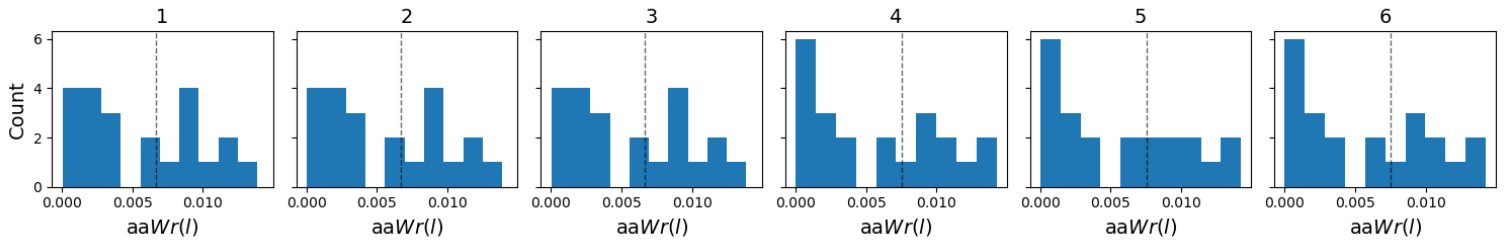
6ti5 (11-40): Gantenerumab (18-27) epitope



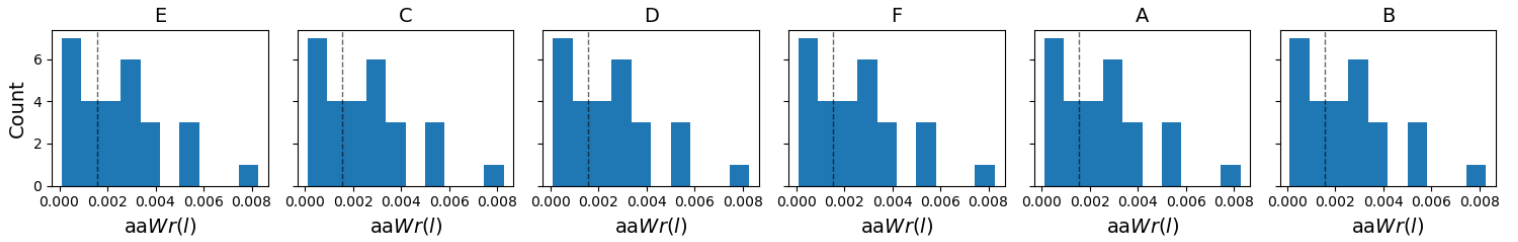
6ti6 (11-42): Gantenerumab (18-27) epitope



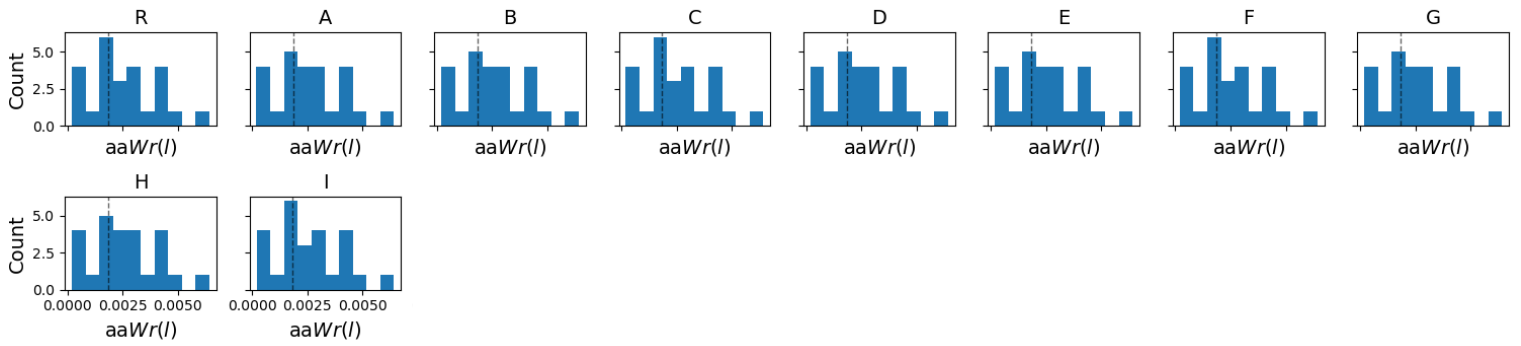
6w0o (10-40): Gantenerumab (18-27) epitope



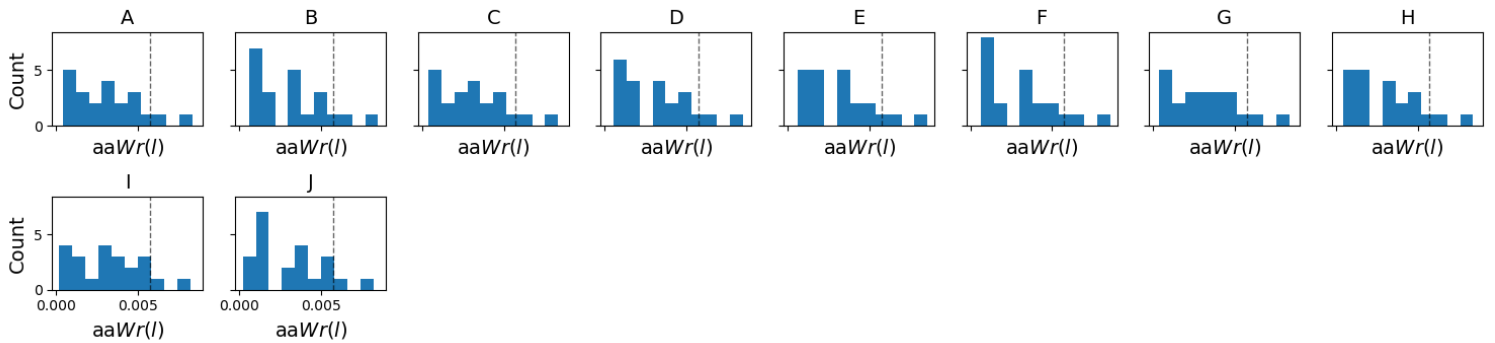
7f29 (6-42): Gantenerumab (18-27) epitope



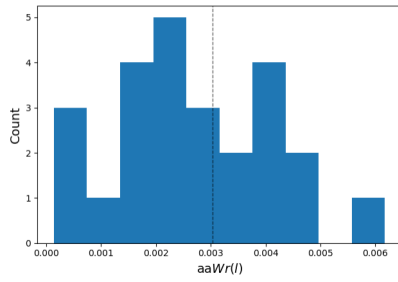
7q4b (9-42): Gantenerumab (18-27) epitope



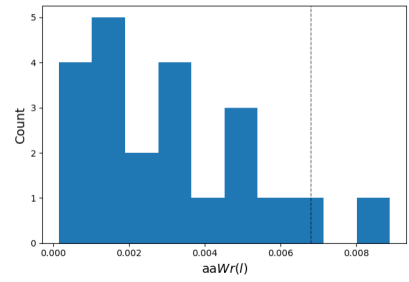
7q4m (12-42): Gantenerumab (18-27) epitope



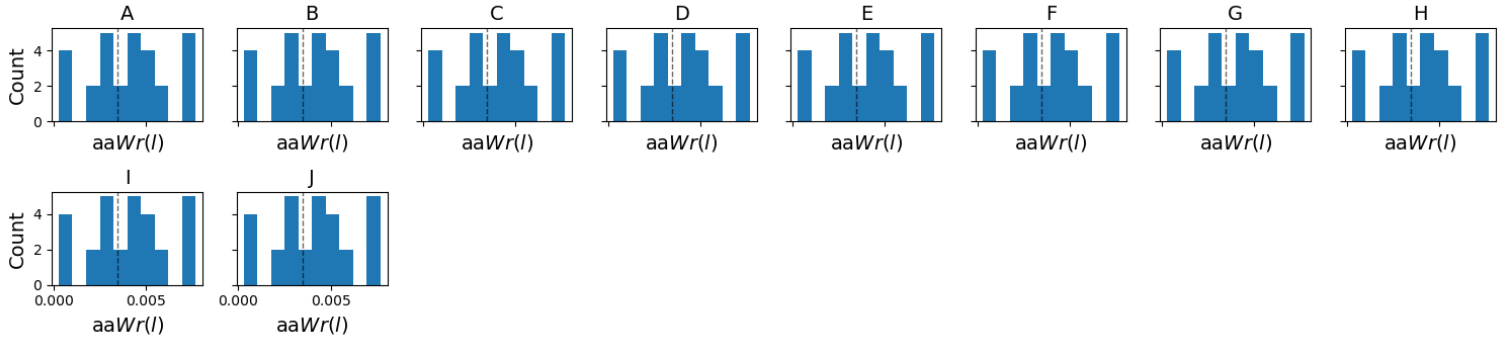
8azs (9-42): Gantenerumab (18-27) epitope



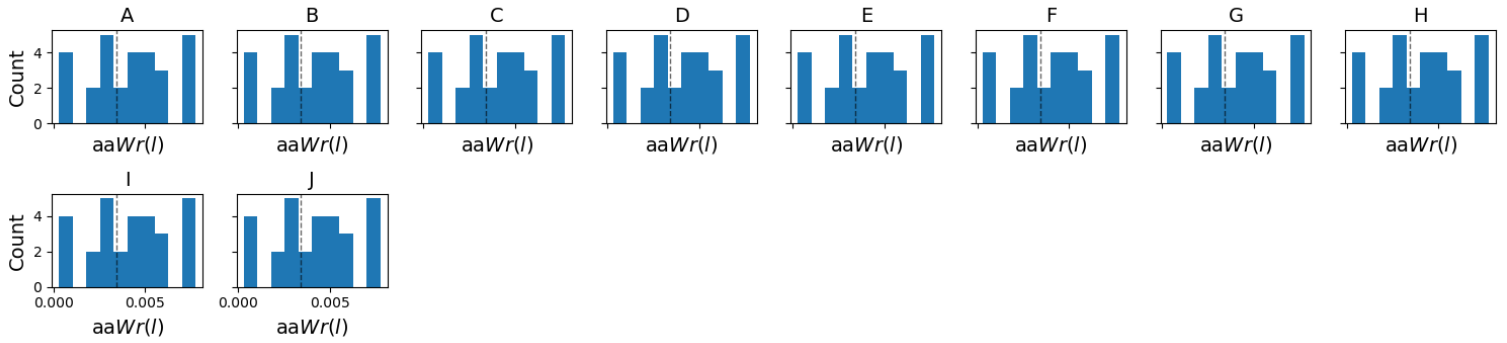
8azt (12-42): Gantenerumab (18-27) epitope



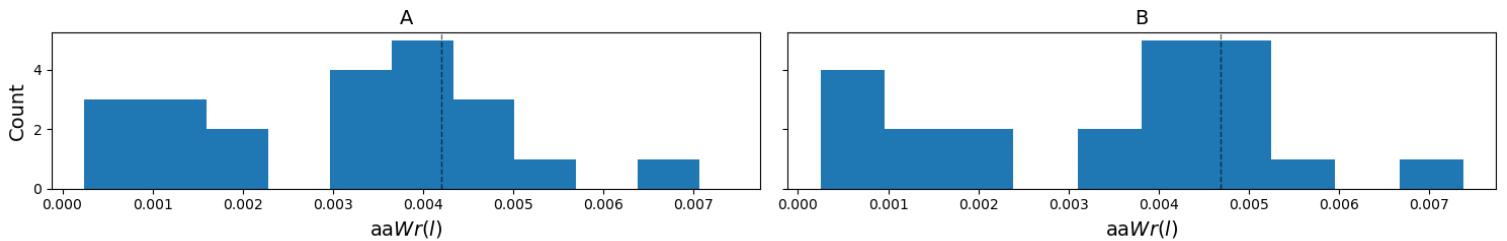
8bfa (1-38): Gantenerumab (18-27) epitope



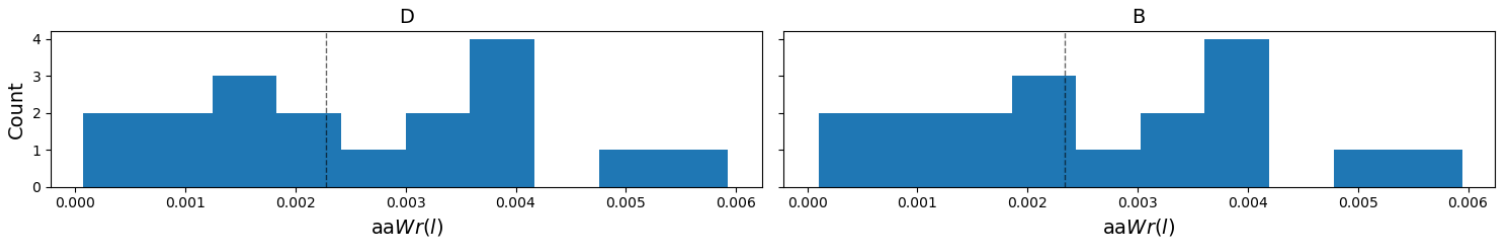
8bfb (1-38): Gantenerumab (18-27) epitope



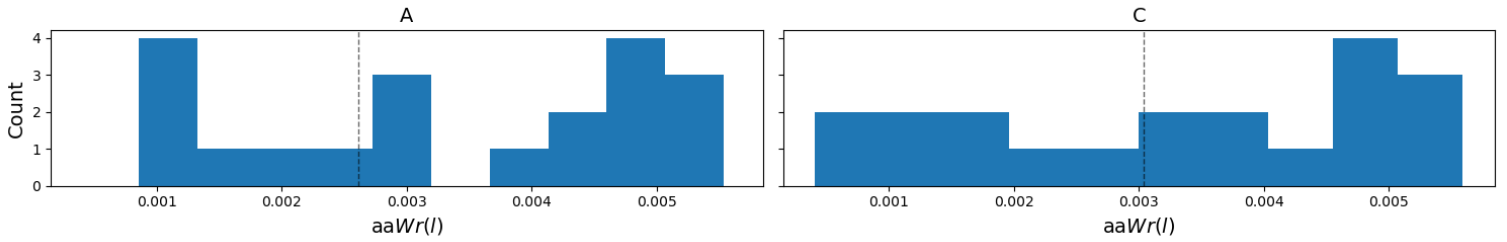
8bfz (12-42): Gantenerumab (18-27) epitope



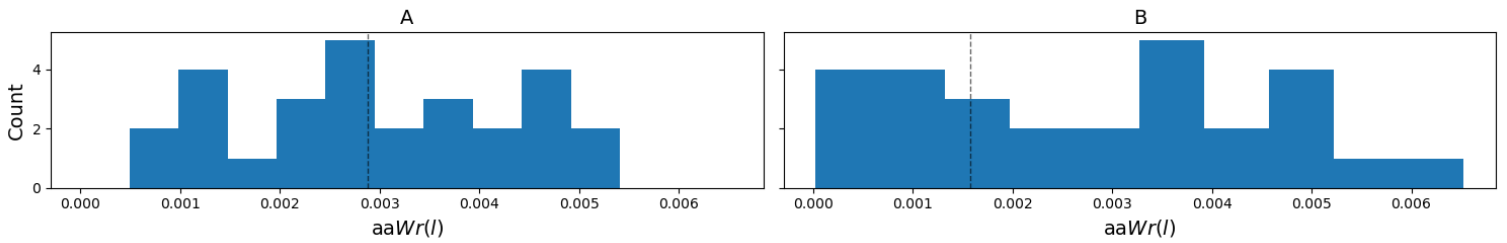
8bg0 (11-37): Gantenerumab (18-27) epitope



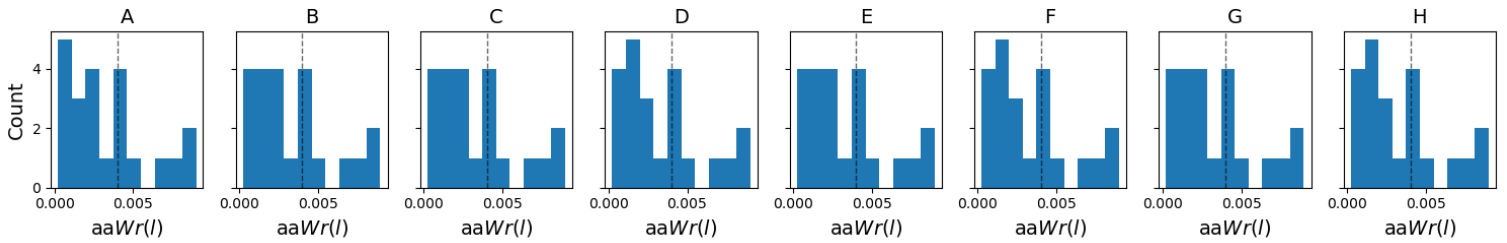
8bg0 (12-40): Gantenerumab (18-27) epitope



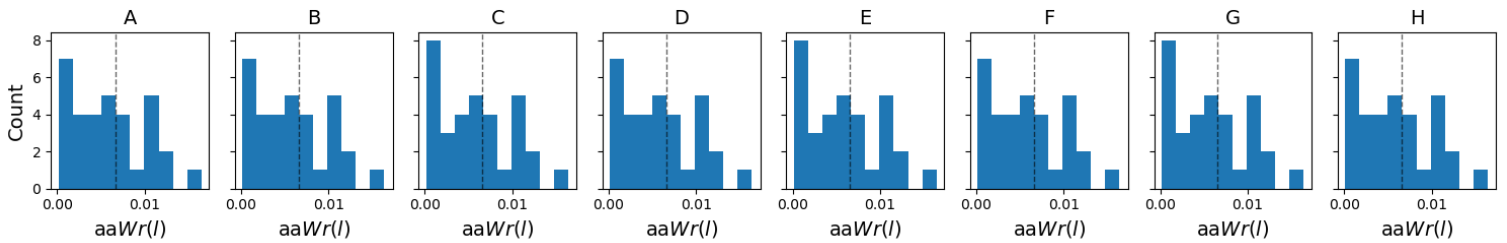
8bg9 (1-37): Gantenerumab (18-27) epitope



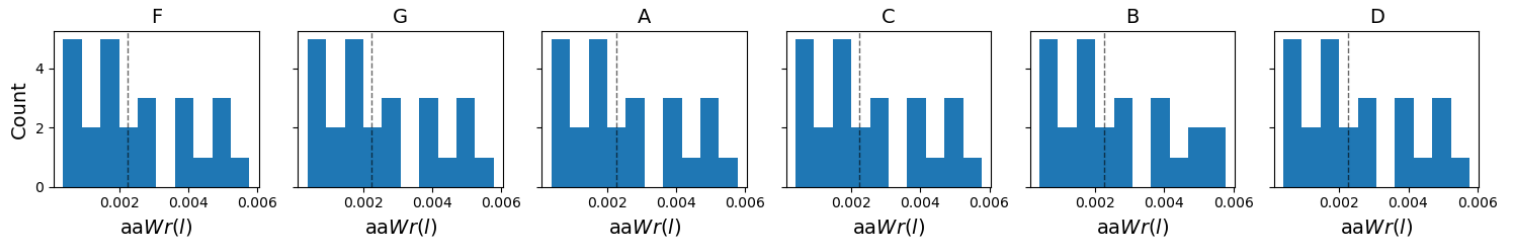
8ezd (12-42): Gantenerumab (18-27) epitope



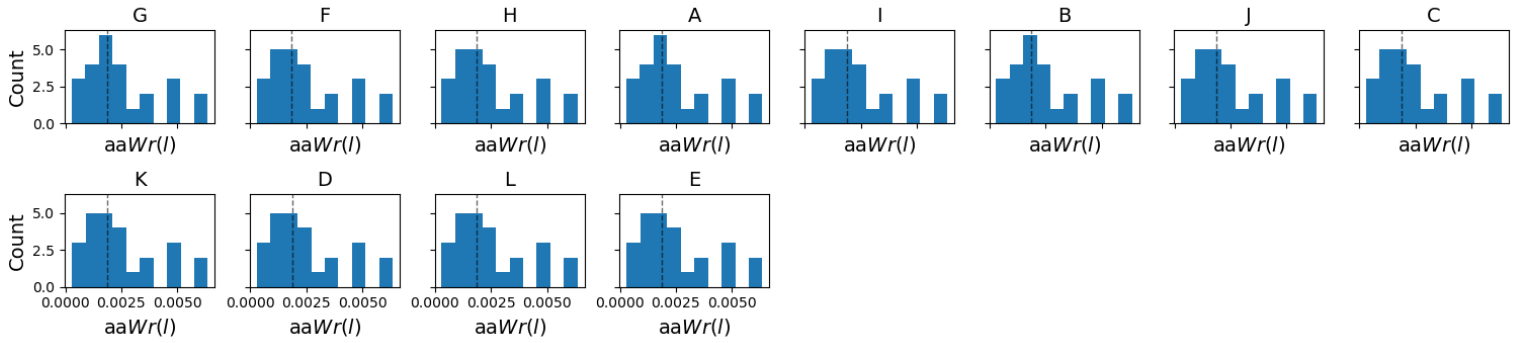
8eze (1-42): Gantenerumab (18-27) epitope



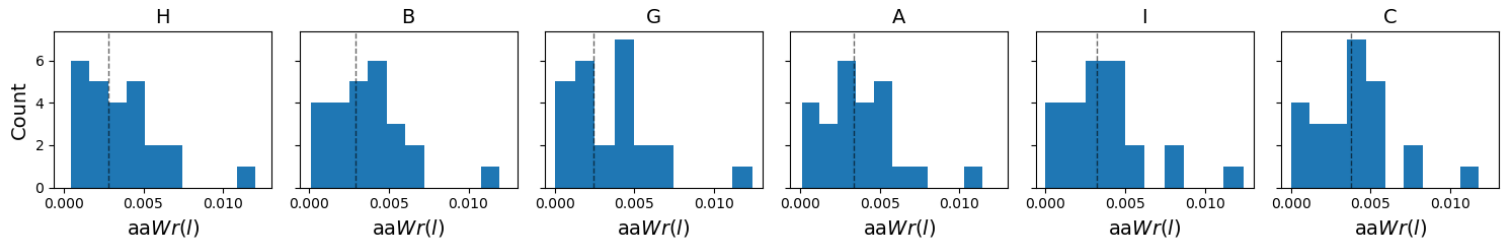
### 8kew (9-42): Gantenerumab (18-27) epitope



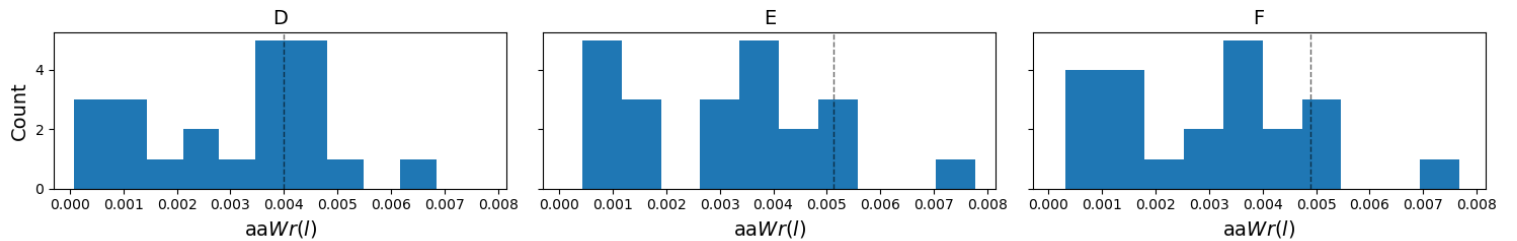
### 8kf1 (9-42): Gantenerumab (18-27) epitope



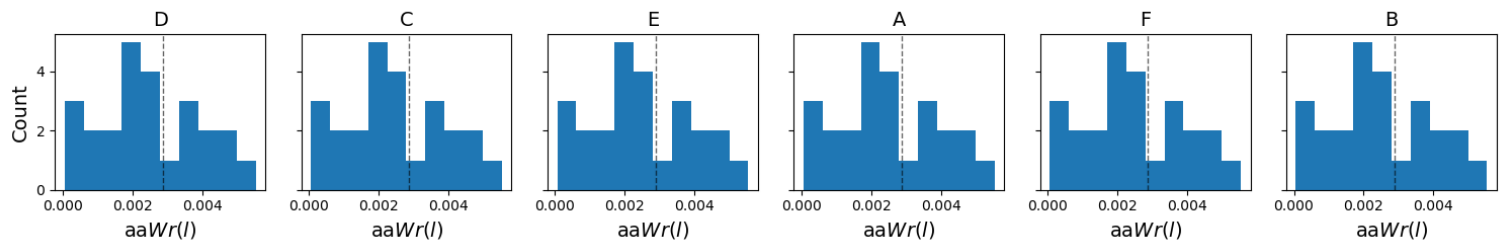
### 8kf3 (9-42): Gantenerumab (18-27) epitope



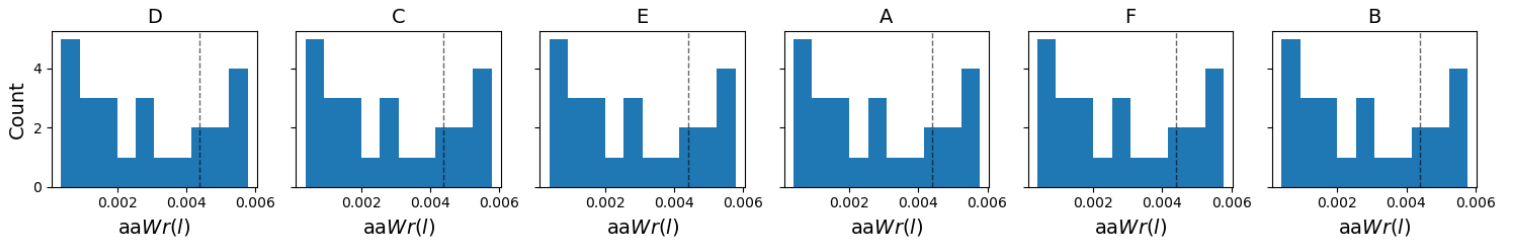
### 8kf3 (12-42): Gantenerumab (18-27) epitope



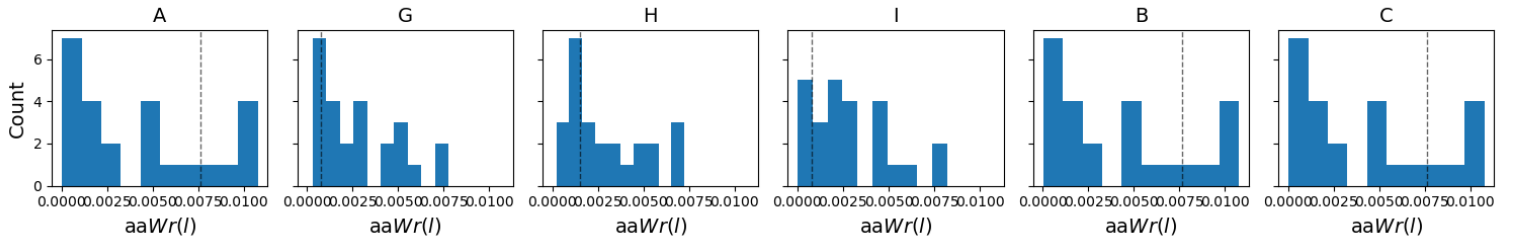
### 8kf4 (9-42): Gantenerumab (18-27) epitope



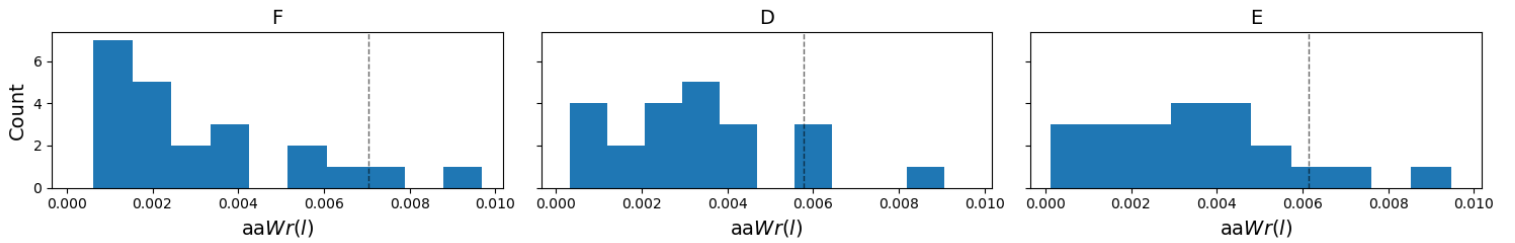
8kf5 (9-42): Gantenerumab (18-27) epitope



8kf6 (9-42): Gantenerumab (18-27) epitope



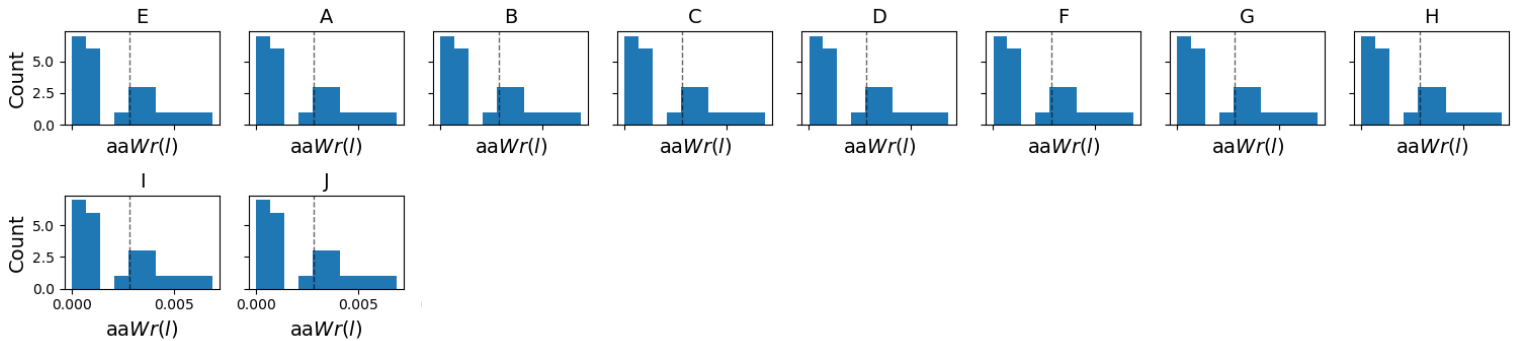
8kf6 (12-42): Gantenerumab (18-27) epitope



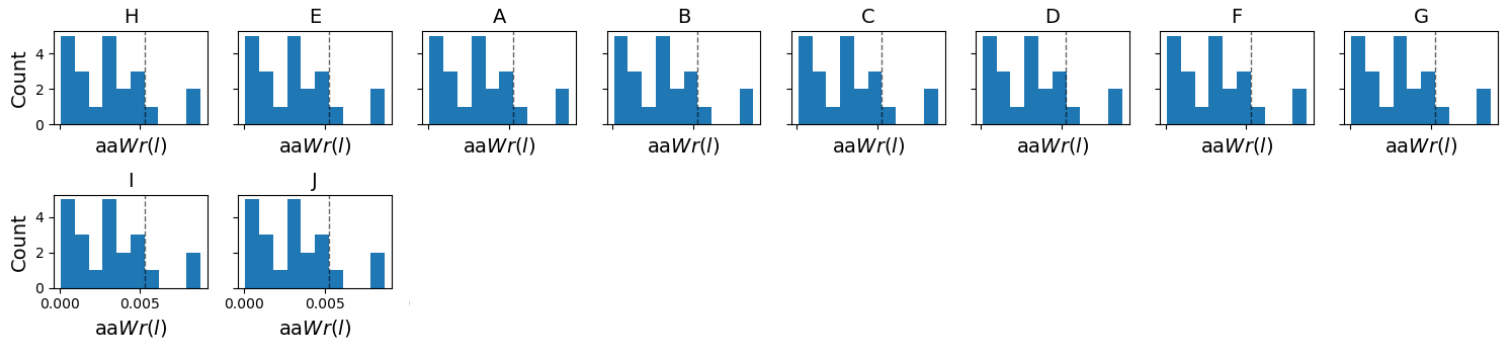
8ol2 (12-42): Gantenerumab (18-27) epitope



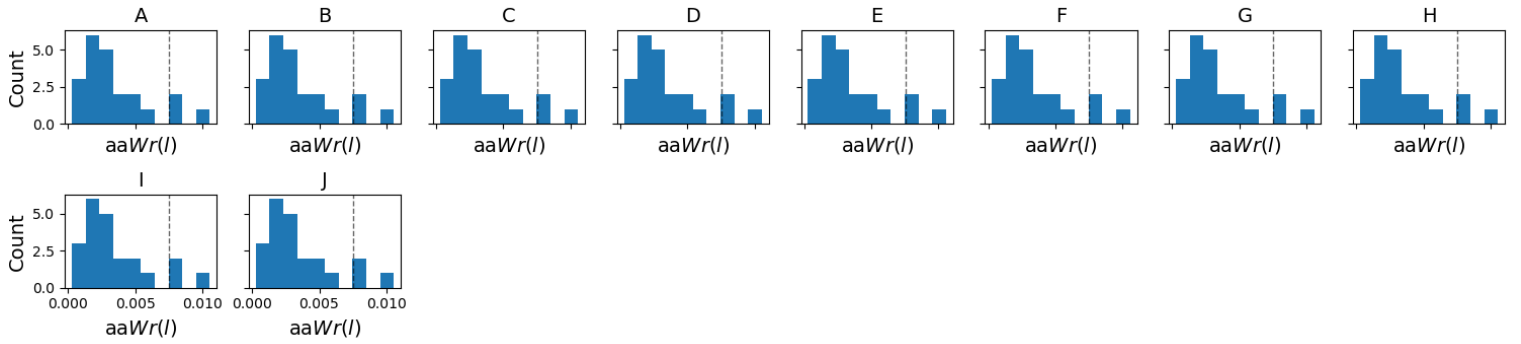
8ol3 (10-42): Gantenerumab (18-27) epitope



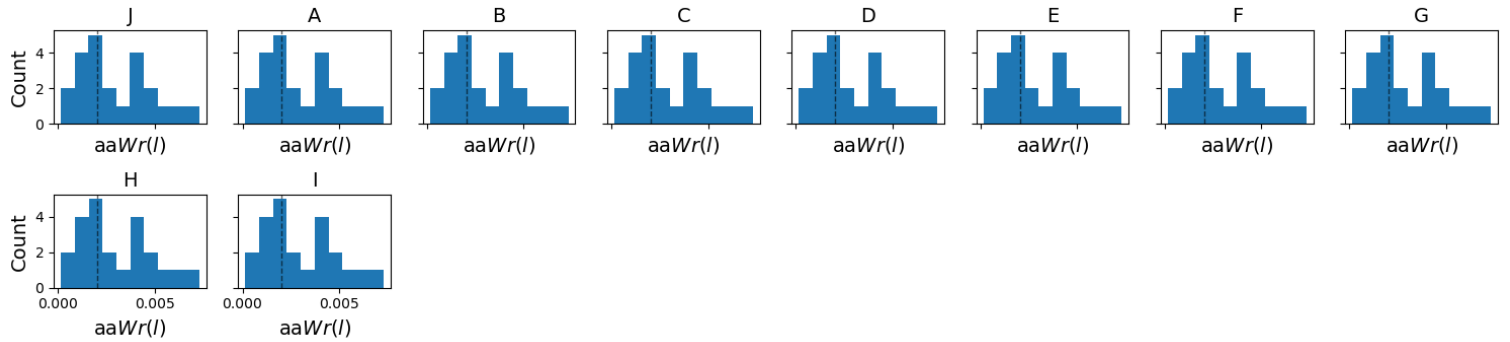
### 8oI5 (12-42): Gantenerumab (18-27) epitope



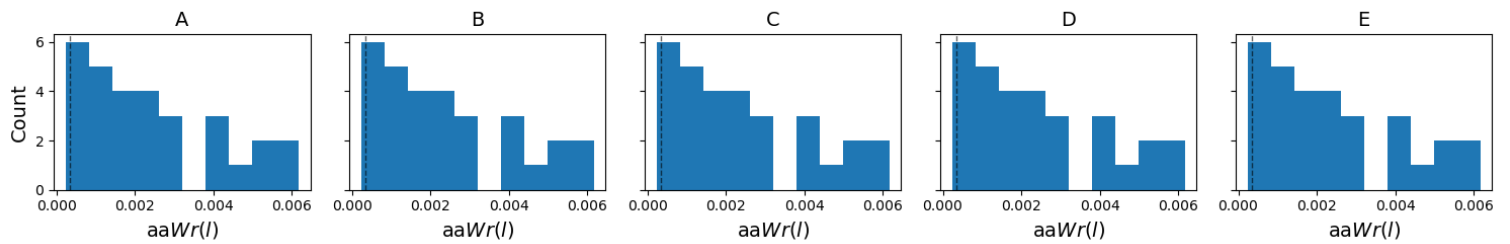
### 8oI6 (12-42): Gantenerumab (18-27) epitope



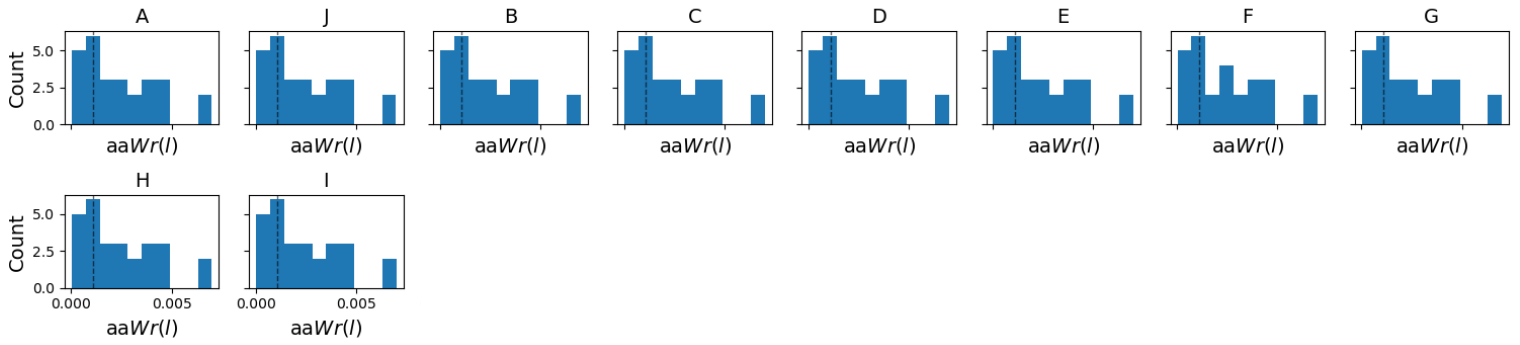
### 8oI7 (9-40): Gantenerumab (18-27) epitope



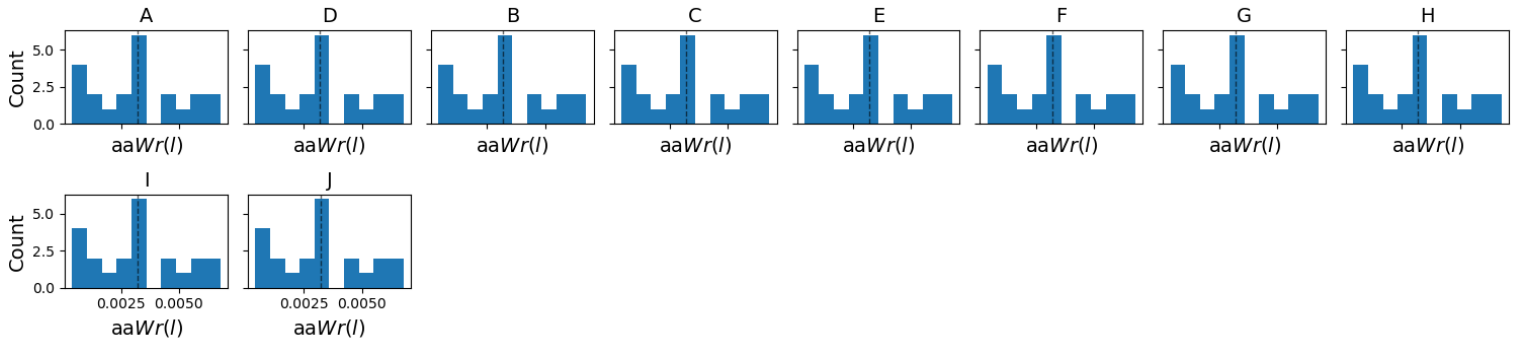
### 8oIg (1-39): Gantenerumab (18-27) epitope



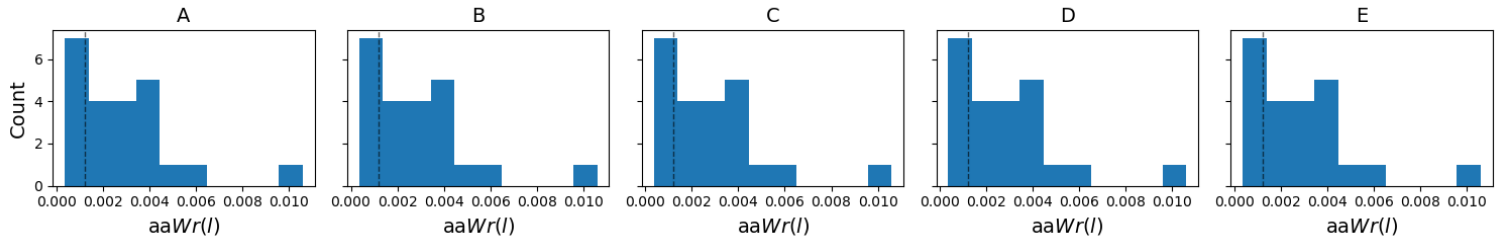
### 80ln (1-36): Gantenerumab (18-27) epitope



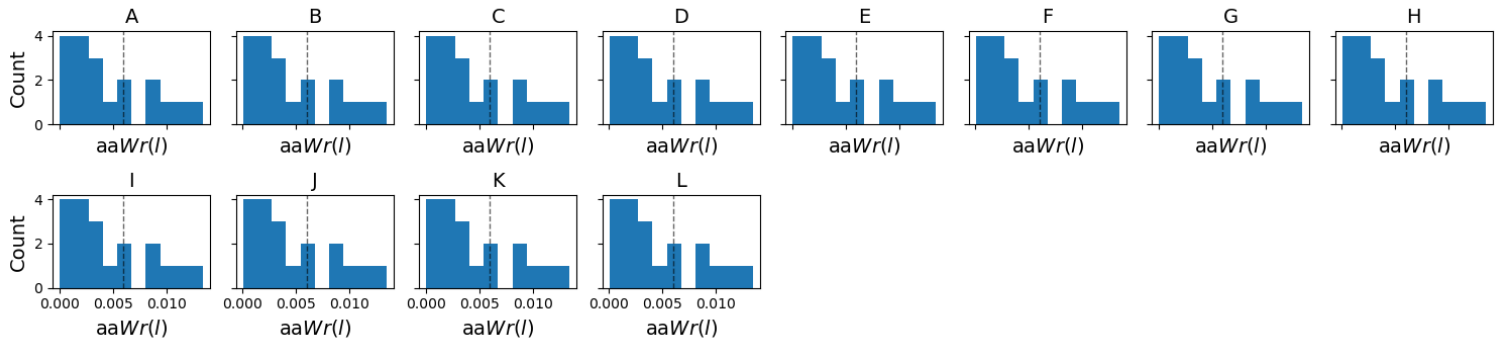
### 80lo (10-40): Gantenerumab (18-27) epitope



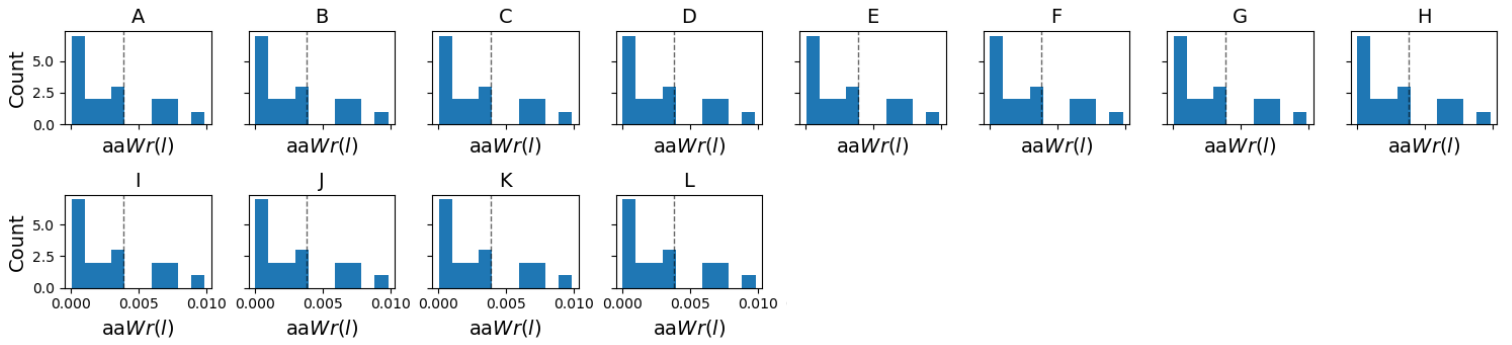
### 80lq (2-33): Gantenerumab (18-27) epitope



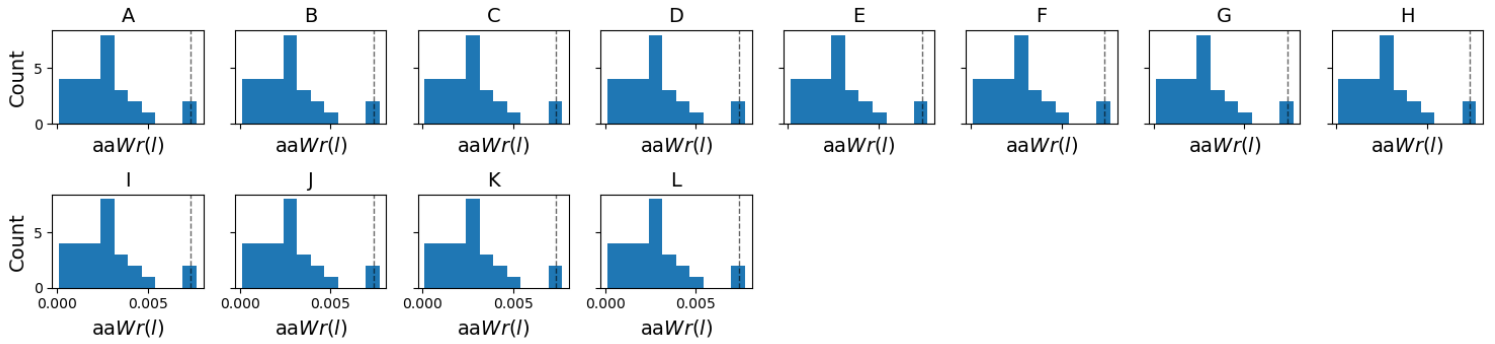
### 80t1 (13-40): Gantenerumab (18-27) epitope



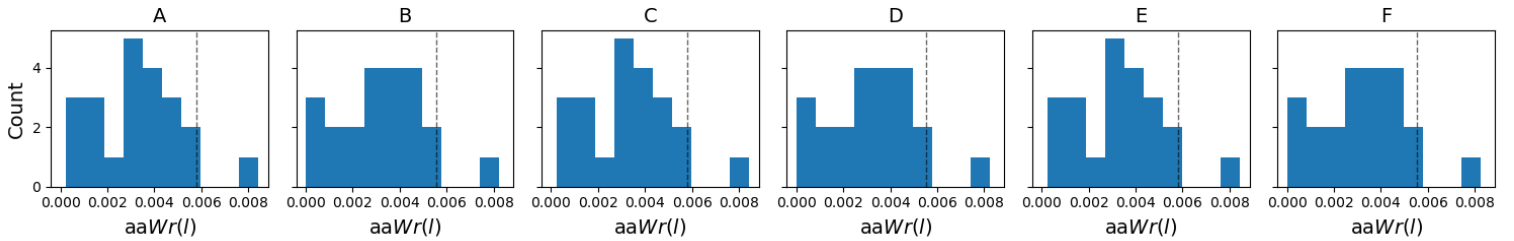
### 8ot3 (13-40): Gantenerumab (18-27) epitope



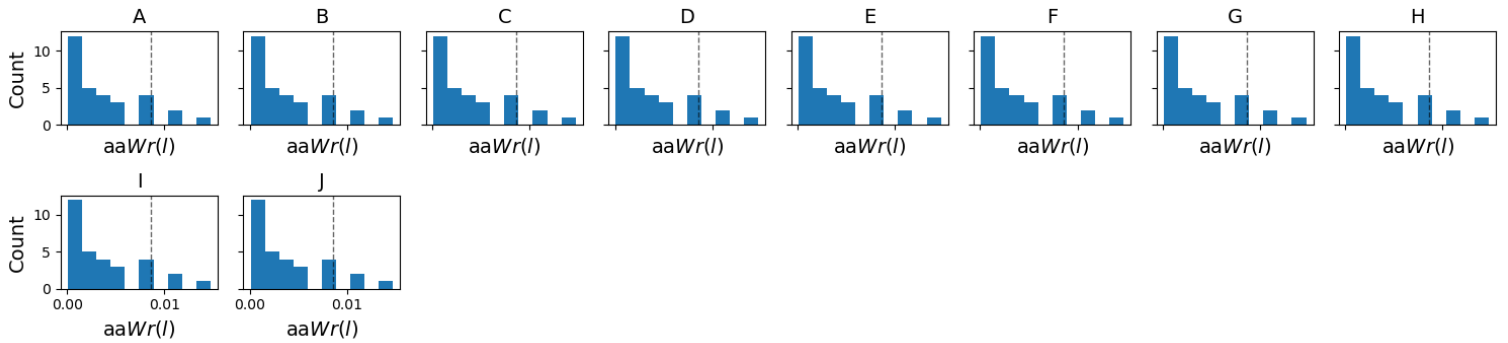
### 8ot4 (1-37): Gantenerumab (18-27) epitope



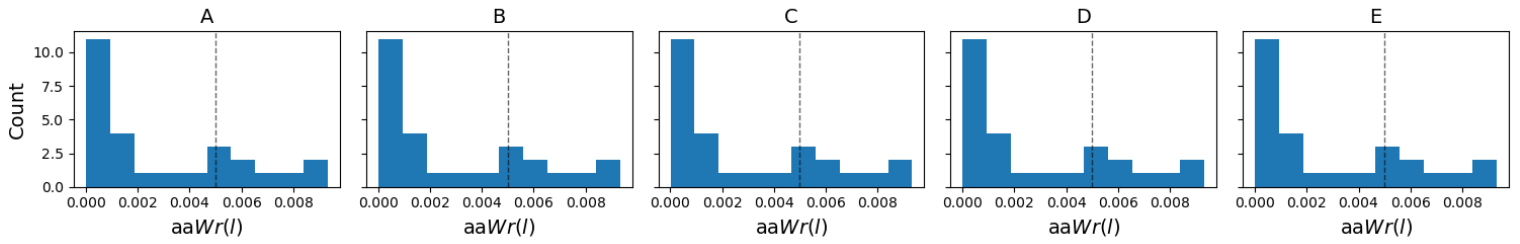
### 8otf (12-42): Gantenerumab (18-27) epitope



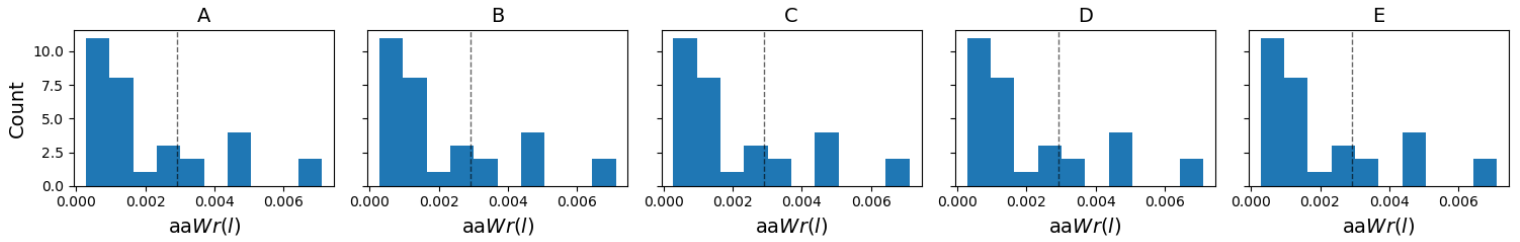
### 8ovk (1-40): Gantenerumab (18-27) epitope



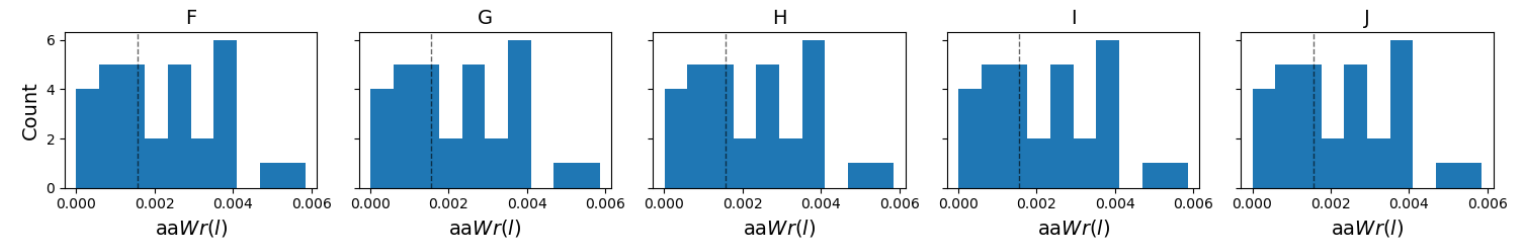
### 8ovm (5-40): Gantenerumab (18-27) epitope



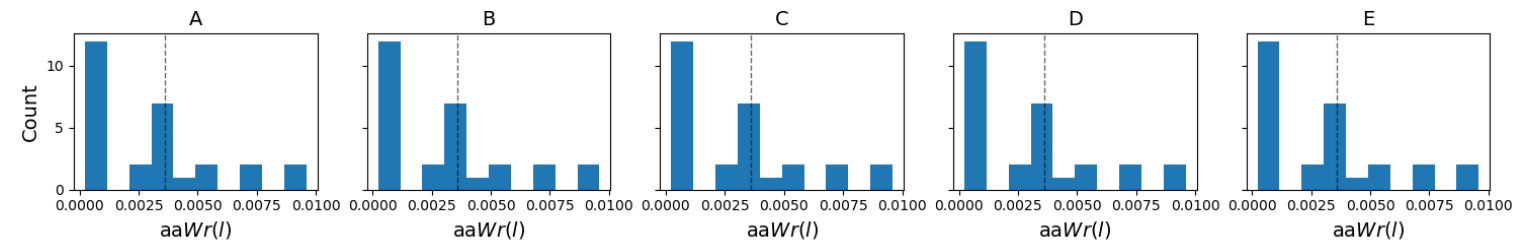
### 8owd (1-40): Gantenerumab (18-27) epitope



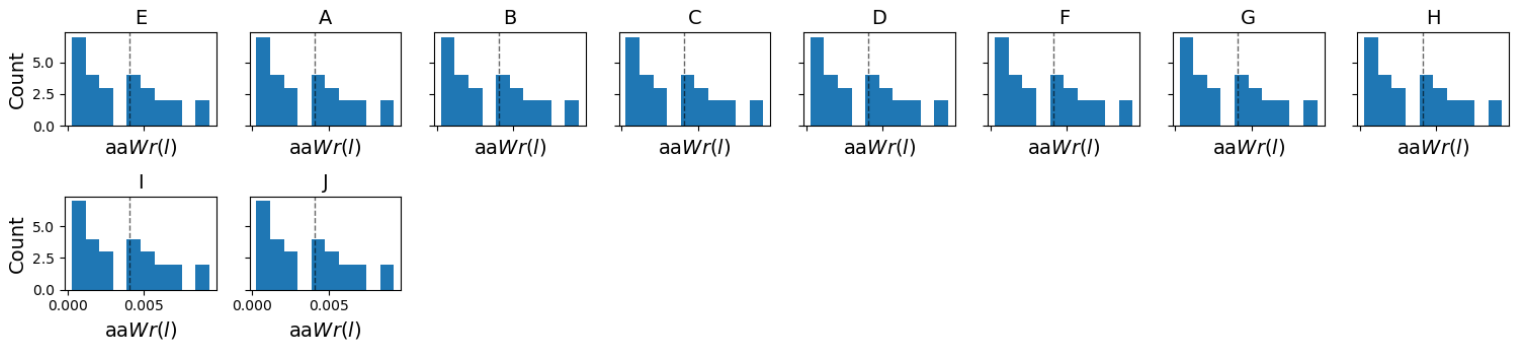
### 8owe (1-40): Gantenerumab (18-27) epitope



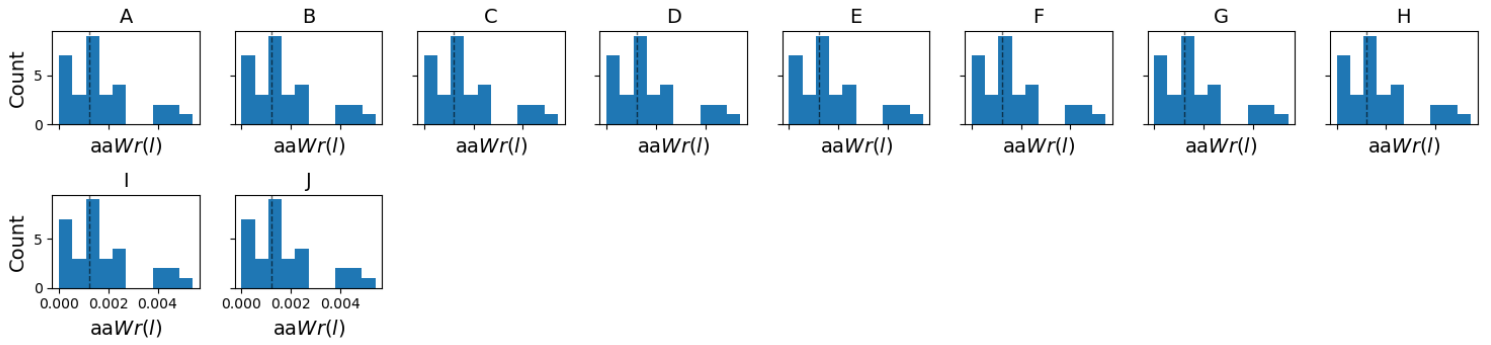
### 8owe (4-40): Gantenerumab (18-27) epitope



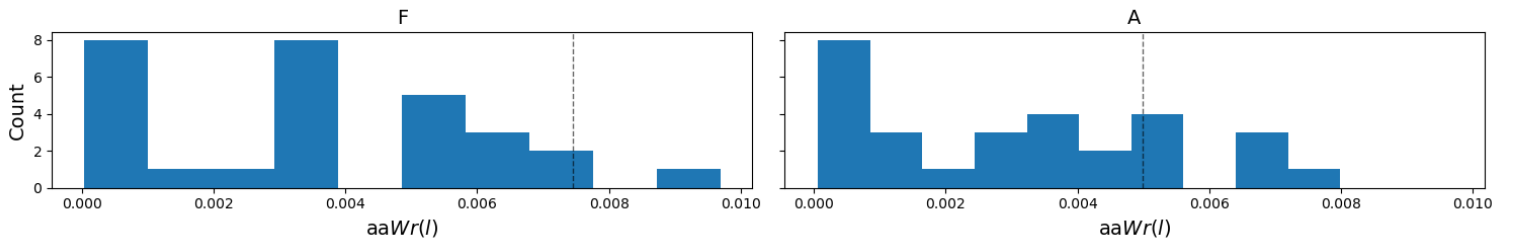
### 8owj (5-40): Gantenerumab (18-27) epitope



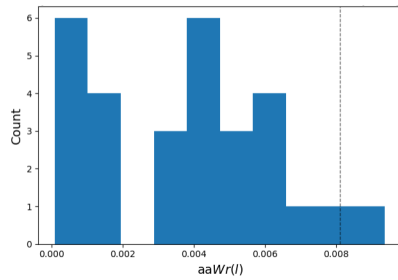
### 8owk (1-40): Gantenerumab (18-27) epitope



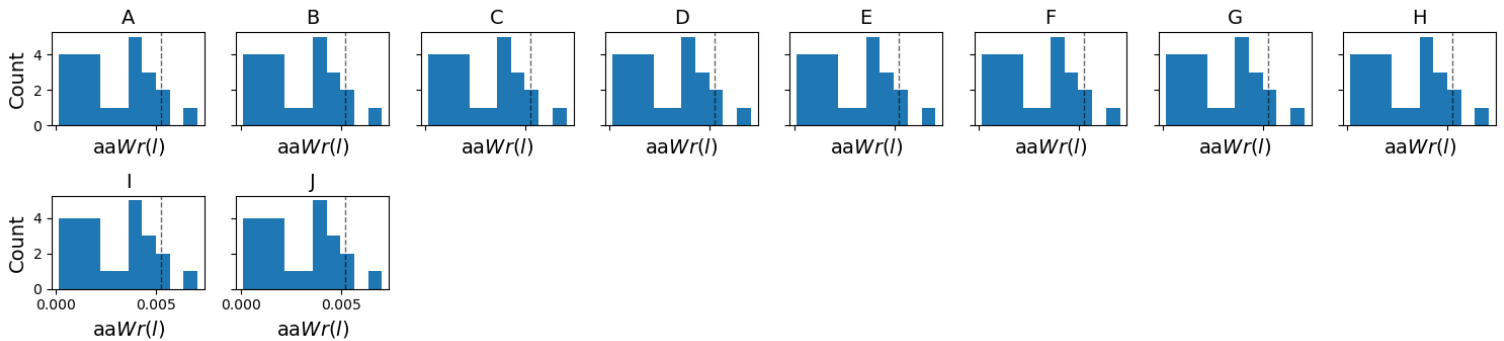
### 8qn6 (1-38): Gantenerumab (18-27) epitope



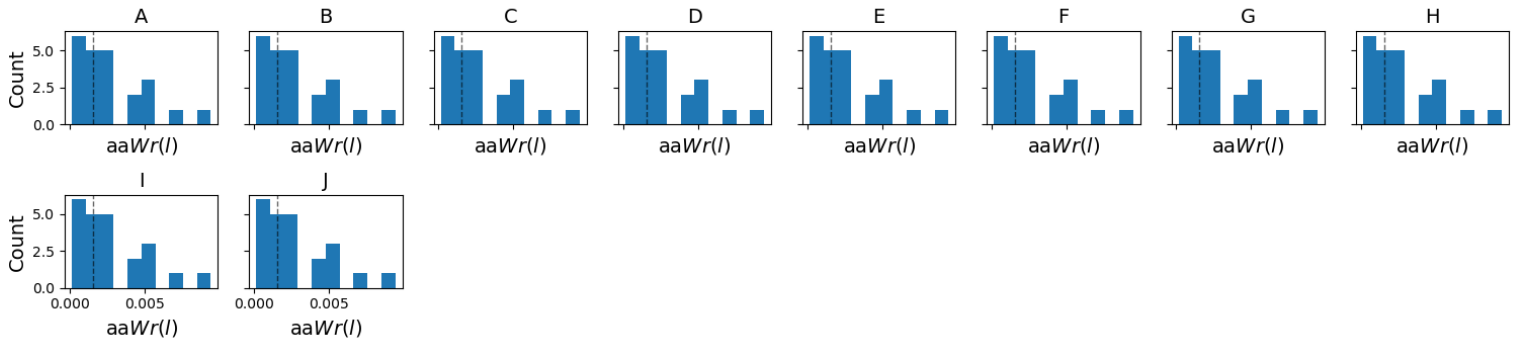
### 8qn7 (1-38): Gantenerumab (18-27) epitope



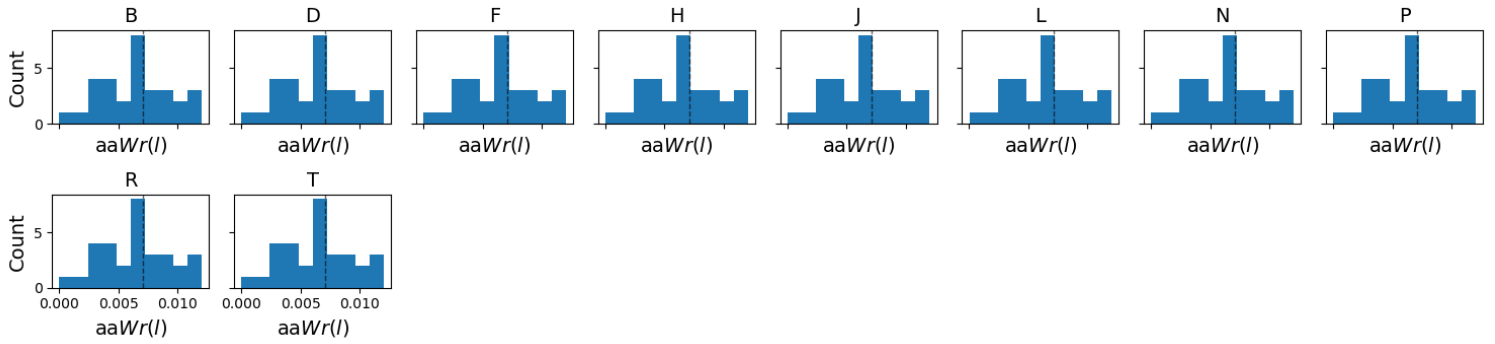
### 8sej (9-42): Gantenerumab (18-27) epitope



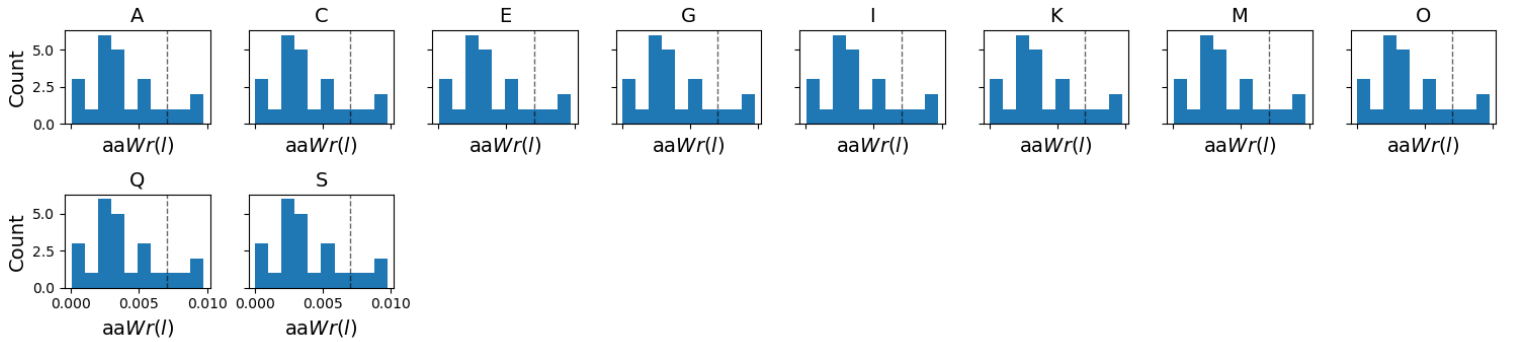
### 8sek (9-40): Gantenerumab (18-27) epitope



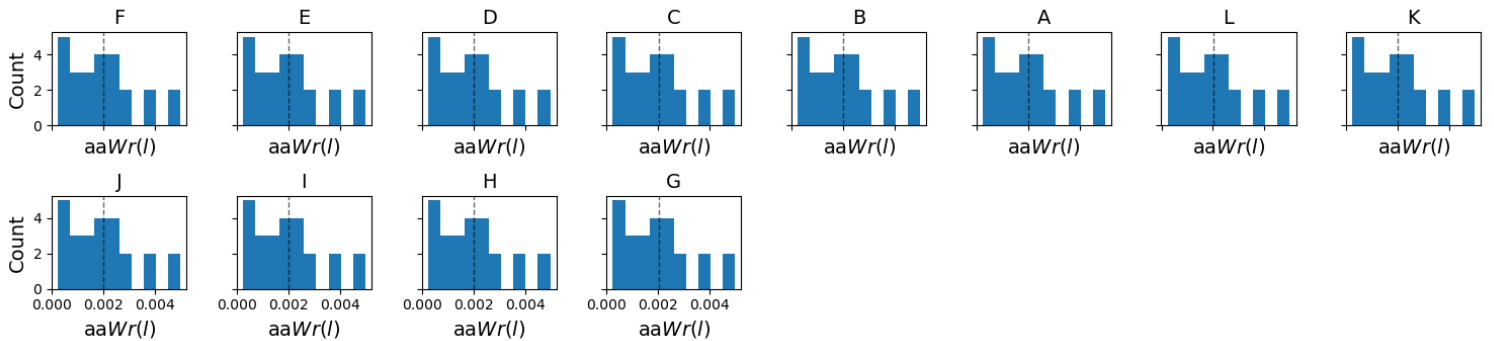
### 8sel (1-40): Gantenerumab (18-27) epitope



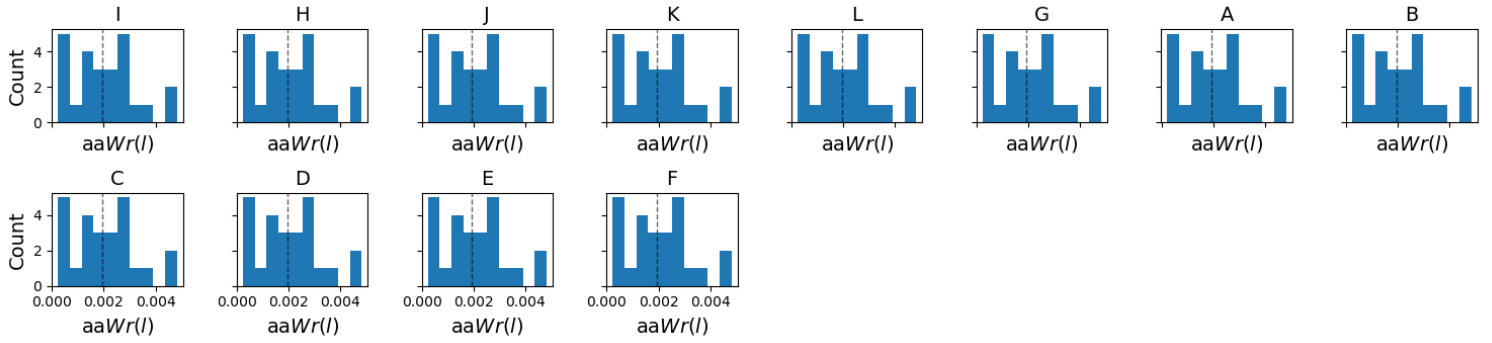
### 8sel (8-40): Gantenerumab (18-27) epitope



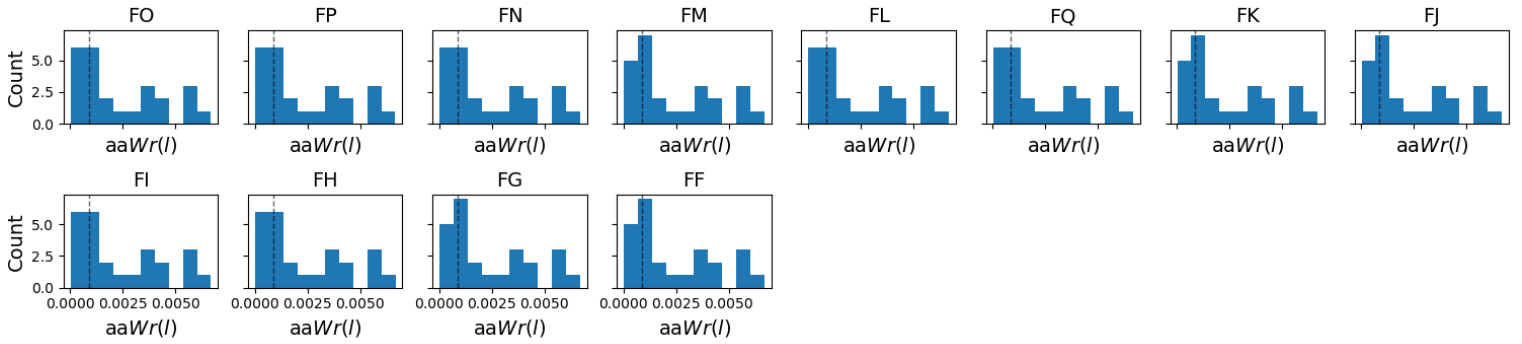
### 9jaz (9-42): Gantenerumab (18-27) epitope



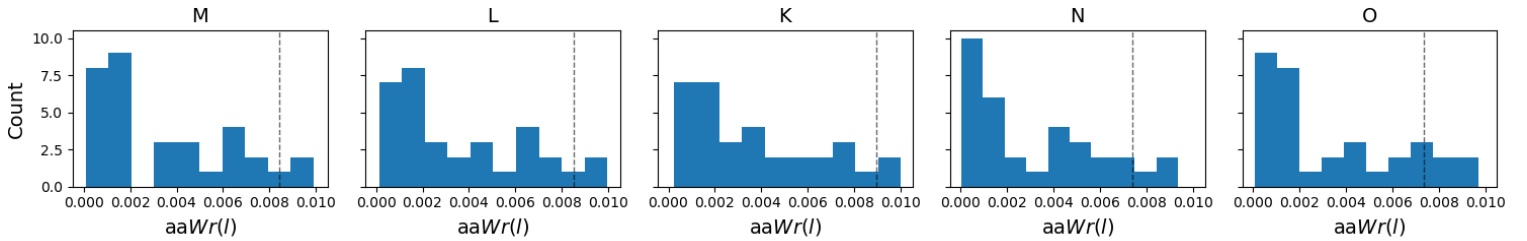
9jb0 (9-42): Gantenerumab (18-27) epitope



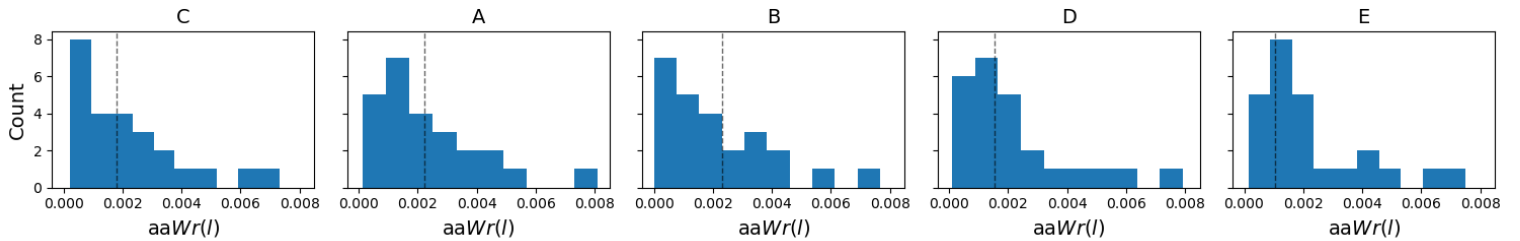
9jb1 (9-42): Gantenerumab (18-27) epitope



9jb2 (1-42): Gantenerumab (18-27) epitope



9jb2 (9-42): Gantenerumab (18-27) epitope



### 9jb2 (15-42): Gantenerumab (18-27) epitope



**Figure S4:** The histogram of  $aaWr(l)$  values collected with a residue window size corresponding to each epitope for 69 fibrils. The dotted lines in the panels indicate the  $aaWr(l)$  value for the epitope. (a) lecanemab (21-29), (b) lecanemab (1-16), (c) aducanumab (3-7), (d) donanemab (3-13), (e) gantenerumab (3-11), and (f) gantenerumab (18-27).