

Supplementary table 1. Number of invasive MenB strains by FHbp peptide and isolation year.

FHbp allele peptide	2015	2016	2017	2018	TOTAL
45 (A)¹	15	15	8	28	66
19 (A)¹⁺	15	8	15	10	48
47 (A)¹⁺	8	12	6	4	30
1 (B)^{1+,2}	7	4	10	3	24
13 (B)¹⁺	1	6	5	7	19
16 (A)¹⁺	5	6	2	5	18
21 (A)¹⁺	5	2	5	4	16
25 (A)¹⁺	5	2	3	5	15
14 (B)^{1+,2+}	5	5	2	2	14
366 (A)	2	1	1	6	10
4 (B)^{1+,2+}	3	3	1	0	7
260 (B)	4	1	0	2	7
510 (B)²⁺	1	1	3	2	7
31 (A)	1	0	2	3	6
145 (B)	0	1	3	2	6
22 (A)	0	3	0	2	5
15 (B)^{1+,2+}	2	2	0	0	4
215 (B)	2	1	0	1	4
494 (A)	0	0	2	2	4
29 (A)	3	0	0	0	3
34 (A)	2	0	1	0	3
102 (A)	0	1	2	0	3
119 (A)	0	1	1	1	3
160 (A)	0	2	0	1	3
213 (B)	2	0	0	1	3
245 (B)²⁺	0	2	0	1	3
283 (A/B)	1	1	0	1	3
10 (B)	0	2	0	0	2
24 (A)¹⁺	0	0	1	1	2
37 (B)²⁺	0	2	0	0	2
61 (B)	0	0	1	1	2
94 (A)	1	0	1	0	2
207 (A/B)	0	2	0	0	2
228 (B)	1	1	0	0	2
276 (B)	1	1	0	0	2
345 (A)	0	0	2	0	2
357 (B)	1	1	0	0	2
390 (B)	0	0	1	1	2
409 (A)	0	1	0	1	2
511 (A)	0	1	1	0	2
544 (B)	2	0	0	0	2
558 (A)	0	0	1	1	2
1008 (A)	1	0	0	1	2
1143 (A)	1	0	1	0	2

1254 (A)	0	0	0	2	2
1287 (A)	0	0	0	2	2
2 (B) ²⁺	1	0	0	0	1
12 (B)	0	0	0	1	1
35 (B)	1	0	0	0	1
59 (B)	1	0	0	0	1
69 (B)	0	1	0	0	1
79 (A)	0	1	0	0	1
90 (B) ²⁺	0	0	0	1	1
108 (B)	0	1	0	0	1
144 (B) ²⁺	0	0	0	1	1
174 (A)	1	0	0	0	1
190 (A)	0	1	0	0	1
203 (A)	0	1	0	0	1
249 (B) ²⁺	0	0	0	1	1
318 (B)	0	1	0	0	1
340 (B)	1	0	0	0	1
341 (A)	0	0	0	1	1
369 (B)	0	0	0	1	1
401 (A)	0	1	0	0	1
403 (B)	0	0	0	1	1
584 (A)	1	0	0	0	1
651 (A)	0	1	0	0	1
697 (B)	0	0	1	0	1
698 (A)	1	0	0	0	1
1138 (A)	1	0	0	0	1
1139 (A)	0	1	0	0	1
1140 (A)	0	1	0	0	1
1141 (B)	1	0	0	0	1
1142 (B)	1	0	0	0	1
1145 (B)	0	1	0	0	1
1168 (B)	0	1	0	0	1
1199 (A)	0	0	0	1	1
1251 (A)	0	0	0	1	1
1256 (A/B)	1	0	0	0	1
1275 (A)	0	0	1	0	1
1285 (B)	0	0	1	0	1
1286 (B)	0	0	1	0	1
1296 (A)	0	0	1	0	1
-	0	0	1	0	1
TOTAL	108	103	87	112	410

(A) FHbp subfamily A peptides.

(B) FHbp subfamily B peptides.

(A/B) FHbp subfamily A/B hybrid peptides.

¹ FHbp peptide included in rLP2086 vaccine.

¹⁺ FHbp peptides “cross-reactive” to antibodies anti-FHbp induced by rLP2086 [19].

² FHbp peptide included in 4CMenB vaccine.

²⁺ FHbp peptides defined as predictors of FHbp-coverage for 4CMenB by gMATS [20].