

Ranked list of epitope positions for DMS experiments

#notebook/2021/03/08

#collaboration/bloom

Create a ranked list of epitope positions for inclusion in DMS experiments. Use the HA1 variants used to designate major clades over the last 6 years of H3N2 evolution:

https://raw.githubusercontent.com/nextstrain/seasonal-flu/990fa6/config/clades_h3n2_ha.tsv

For each HA1 mutation, manually annotate the number of major clades it appeared in over the last 6 years. There are 21 variants in the last 6 years that appeared in major clades. Order these by the number of major clades they appeared in:

	site	clades
0	193	4
1	142	4
2	135	3
3	138	3
4	160	3
5	186	3
6	159	2
7	261	2
8	121	2
9	128	2
10	131	2
11	144	2
12	198	2
13	171	2
14	190	2
15	197	2
16	62	1
17	192	1
18	83	1
19	92/311	1
20	326	1

List of variant sites:

193
142
135
138
160
186
159
261
121
128
131
144
198
171
190
197
62
192
83
92/311
326

Link out to site-specific views on Nextstrain:

site: 193

https://nextstrain.org/flu/seasonal/h3n2/ha/6y?branchLabel=aa&c=gt-HA1_193&d=tree,entropy,frequencies&p=full

site: 142

https://nextstrain.org/flu/seasonal/h3n2/ha/6y?branchLabel=aa&c=gt-HA1_142&d=tree,entropy,frequencies&p=full

site: 135

<https://nextstrain.org/flu/seasonal/h3n2/ha/6y?branchLabel=aa&c=gt->

HA1_135&d=tree,entropy,frequencies&p=full

site: 138

https://nextstrain.org/flu/seasonal/h3n2/ha/6y?branchLabel=aa&c=gt-HA1_138&d=tree,entropy,frequencies&p=full

site: 160

https://nextstrain.org/flu/seasonal/h3n2/ha/6y?branchLabel=aa&c=gt-HA1_160&d=tree,entropy,frequencies&p=full

site: 186

https://nextstrain.org/flu/seasonal/h3n2/ha/6y?branchLabel=aa&c=gt-HA1_186&d=tree,entropy,frequencies&p=full

site: 159

https://nextstrain.org/flu/seasonal/h3n2/ha/6y?branchLabel=aa&c=gt-HA1_159&d=tree,entropy,frequencies&p=full

site: 261

https://nextstrain.org/flu/seasonal/h3n2/ha/6y?branchLabel=aa&c=gt-HA1_261&d=tree,entropy,frequencies&p=full

site: 121

https://nextstrain.org/flu/seasonal/h3n2/ha/6y?branchLabel=aa&c=gt-HA1_121&d=tree,entropy,frequencies&p=full

site: 128

https://nextstrain.org/flu/seasonal/h3n2/ha/6y?branchLabel=aa&c=gt-HA1_128&d=tree,entropy,frequencies&p=full

site: 131

https://nextstrain.org/flu/seasonal/h3n2/ha/6y?branchLabel=aa&c=gt-HA1_131&d=tree,entropy,frequencies&p=full

site: 144

https://nextstrain.org/flu/seasonal/h3n2/ha/6y?branchLabel=aa&c=gt-HA1_144&d=tree,entropy,frequencies&p=full

site: 198

https://nextstrain.org/flu/seasonal/h3n2/ha/6y?branchLabel=aa&c=gt-HA1_198&d=tree,entropy,frequencies&p=full

site: 171

https://nextstrain.org/flu/seasonal/h3n2/ha/6y?branchLabel=aa&c=gt-HA1_171&d=tree,entropy,frequencies&p=full

site: 190

https://nextstrain.org/flu/seasonal/h3n2/ha/6y?branchLabel=aa&c=gt-HA1_190&d=tree,entropy,frequencies&p=full

site: 197

https://nextstrain.org/flu/seasonal/h3n2/ha/6y?branchLabel=aa&c=gt-HA1_197&d=tree,entropy,frequencies&p=full

site: 62

https://nextstrain.org/flu/seasonal/h3n2/ha/6y?branchLabel=aa&c=gt-HA1_62&d=tree,entropy,frequencies&p=full

site: 192

https://nextstrain.org/flu/seasonal/h3n2/ha/6y?branchLabel=aa&c=gt-HA1_192&d=tree,entropy,frequencies&p=full

site: 83

https://nextstrain.org/flu/seasonal/h3n2/ha/6y?branchLabel=aa&c=gt-HA1_83&d=tree,entropy,frequencies&p=full

site: 92/311

https://nextstrain.org/flu/seasonal/h3n2/ha/6y?branchLabel=aa&c=gt-HA1_92,311&d=tree,entropy,frequencies&p=full

site: 326

https://nextstrain.org/flu/seasonal/h3n2/ha/6y?branchLabel=aa&c=gt-HA1_326&d=tree,entropy,frequencies&p=full