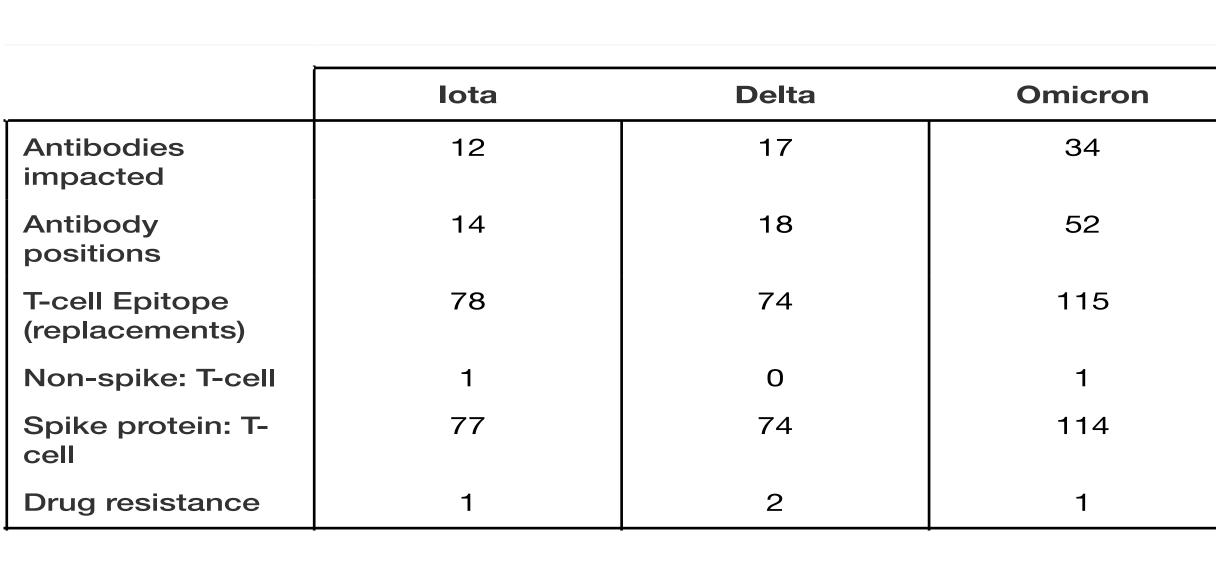
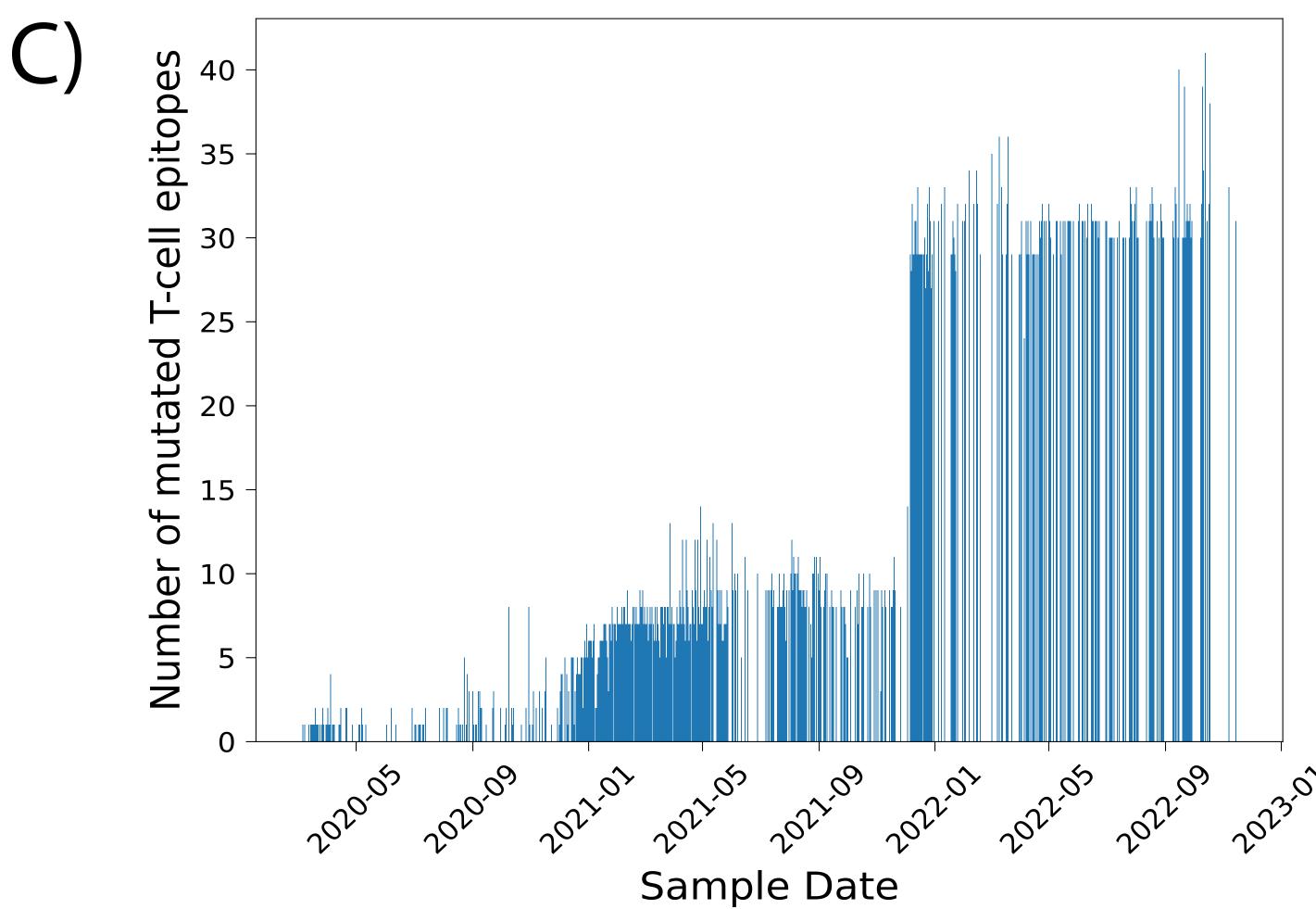
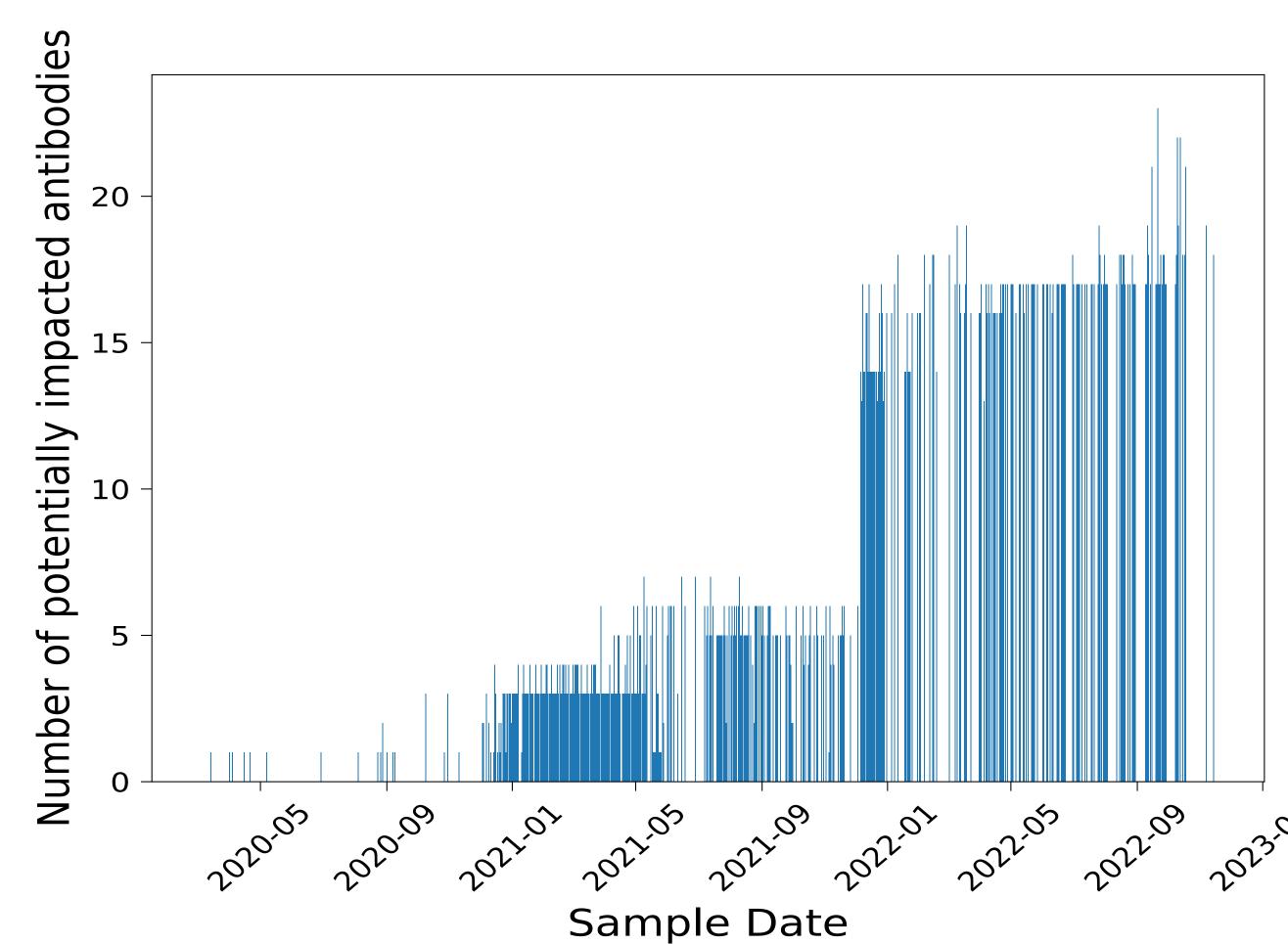
F	1	

	COGS-UK	Bronx	Alpha
Antibodies impacted	149	57	7
Antibody positions	225	82	7
T-cell Epitope	1,204	1,199	36
Non-spike: T-cell	8	3	О
Spike protein: T- cell	1,196	1,196	36
Drug resistance	28	4	О

	lota	Delta	Omicron	
Antibodies impacted	12	17	34	
Antibody positions	14	18	52	
T-cell Epitope (replacements)	78	74	115	
Non-spike: T-cell	1	0	1	
Spike protein: T- cell	77	74	114	
Drug resistance	1	2	1	







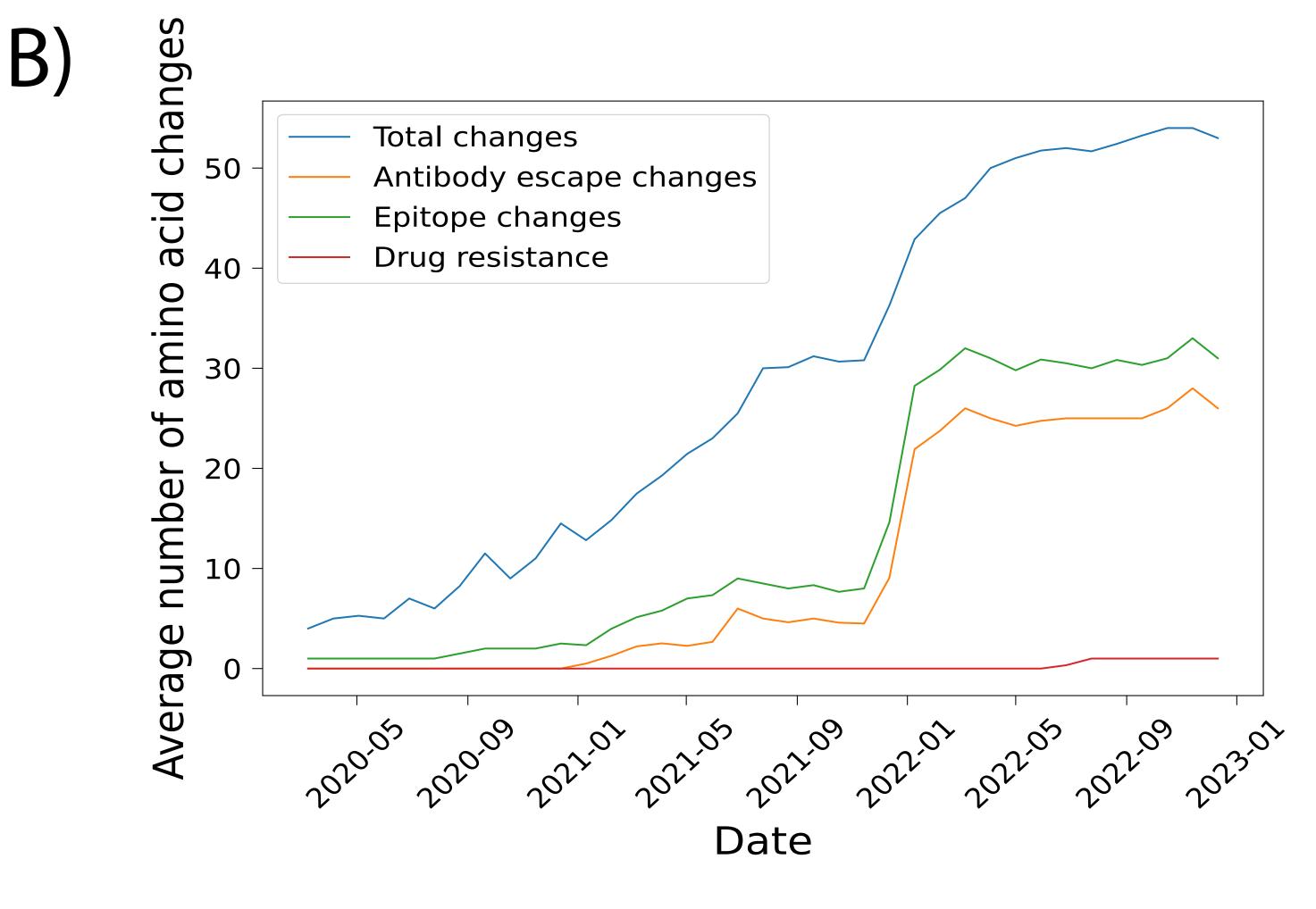
-1.5

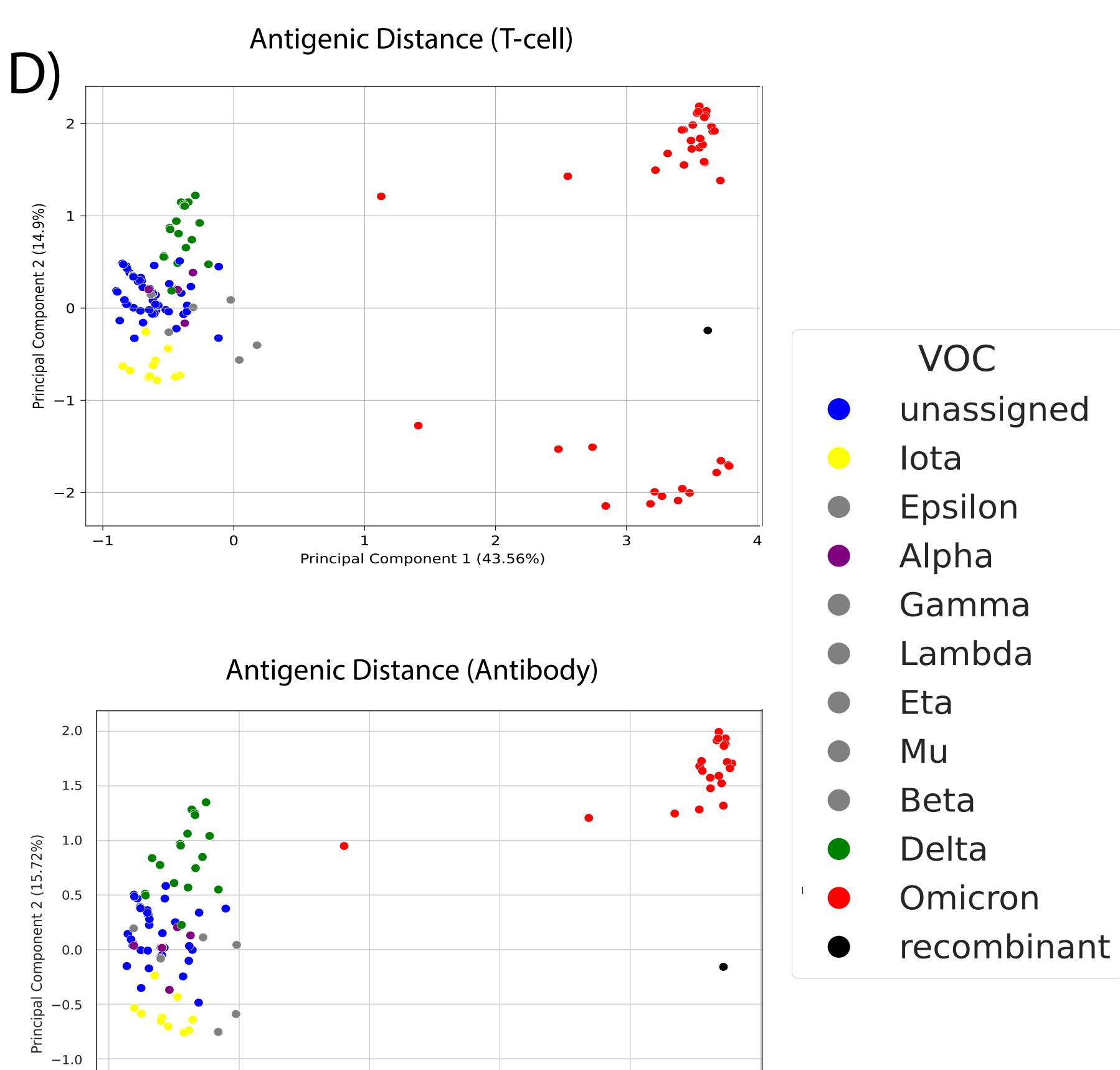
-2.0

-1

0

Principal Component 1 (54.34%)





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