

Phylogenetic analysis of influenza A(H1N1)pdm09 HA genes

23/24, 24/25 vaccine strain in Japan

HI reference strain

December 2024

January 2025

February 2025

March and April 2025

#: WHO recommended vaccine strain (Northern/Southern Hemisphere, season, egg/cell)

subclade	subclade (new)	AA substitution
6B.1A.5a	A	N129D, T185I
6B.1A.5a.1	B	D187A, Q189E
6B.1A.5a.2	C	N156K, L161I
6B.1A.5a.2a	C.1	K54Q, A186T, Q189E, K308R
-	C.1.2	A48P
-	C.1.3	A73T, A141E
-	C.1.4	S85P, D94N, V321I
-	C.1.5	T185V
-	C.1.6	L70I, K169R, K211Q
-	C.1.7	D94N, I533V
-	C.1.7.1	V152I
-	C.1.7.2	K142R
-	C.1.8	T120A, V47I
-	C.1.9	T120A, K169Q
-	C.1.9.1	P137S
-	C.1.9.2	N38D, K480R
-	C.1.9.3	S83P, I510T
-	C.1.9.4	Q54K, D86N, N125D, I149V
6B.1A.5a.2a.1	C.1.1	P137S, K142R
-	D	T216A
-	D.1	R45K
-	D.2	R113K
-	D.3	T120A, I372V
-	D.4	T120A
-	D.5	R45K

