

IGHV3-23

G1	T	A	A	T	C	A	G	G	T	A	G	C	C	C	C	C	A	A	A	
G2	*	A	A	T	C	A	G	G	T	A	G	C	C	C	C	C	A	A	A	
G3	G/T	A	A	T	C	A	G	G	T	A	G	C	C	C	C	C	A	A	A	
G4	*	A	A	T	C	A	G	G	T	A	G	C	*	*	C	C	A	A	A	
G5	G	A	A	T	C	A	G	G	T	A	G	C	C	C	C	C	A	A	A	
G6	*	A	A	T	C	A	G	G	T	A	G	C	C	C	C	C	A/G	A/G	A	
G7	G/T	A	A	T	C	A	G	G	T	A	G	C	C	C	C	C	C/T	A/G	A/G	
G8	*	A	A	T	C	A	G	G	T	A	G	C	C	C	C	C	A	A/G	A	
G9	T	A	A	T	C	A	G	G	T	A	G	C	C	C	C	C	A	A/G	A	
G10	T	A	A	T	C	A	G	G	T	A	G	C	C	C	C	C	A/G	A/G	A	
G11	T	A	A/G	T	C	A	G	G	T	A	G	C	C	C	C	C	A	A	A	
G12	*	A	A	T	C	A	G	G	T	A	G	C	*/C	*/C	C	C	A	A/G	A	
G13	*/T	A	A	T	C/T	A/T	A/G	A/G	C/T	A/G	A/G	C/T	C	C	C/T	C	A	A	A	
G14	*	A	A	T	C	A	G	G	T	A	G	C	C	C	C	C	C/C/T	A/G/GA/G/G	A	
G15	T	A/C	A	T	C	A	G	G	T	A	G	C	C	C	C	C	A	A	A	
G16	G/T	A	A	T	C/T	A/T	A/G	A/G	C/T	A/G	A/G	C/T	C	C	C/T	C	A	A	A	
G17	*	A	A	T	C	A	G	G	T	A	G	C	*/*/C	*/*/C	C	C/C/T	C/T/T	A/G/GA/G/G	A	
G18	*	A	A	T	C	A	G	G	T	A	G	C	C	C	C	C	C/T	A/G	A/G	
G19	*	A	A	T	C	A	G	G	T	A	G	C	*/C	*/C	C	C	A/G	A/G	A	
G20	*	A	A	T	C	*	*	*	*	A	*	*	C	C	C	C	A	A	A	
G21	T	A	A	T	C	A	G	G	T	A	G	C	C	C	C	C	A	A	A/G	
G22	T	A	A	T	C	A	G	G	T	A	G	C	C	C	C	C	C/C/T	C/T/T	A/G/GA/G/G	
G23	T	A	A	G/T	C	A	G	G	T	A	G	C	C	C	C	C	A	A	A	
	13	82	137	143	149	154	155	157	159	160	166	180	182	213	219	264	276	279	293	294

