

**IGHV segment utilization in immunoglobulin gene rearrangement differentiates patients with anti-myelin-associated glycoprotein neuropathy from others immunoglobulin M-gammopathies**

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doi:10.3324/haematol.2017.177444

**Supplemental Table S1: Somatic mutations and *IGH* clonotypes description for each patient included in the study**

Group	Case	Underlying hemopathy	BM infiltrate (% by FCM)	<i>MYD88</i> variant (VAF%)	<i>CXCR4</i> variant (VAF%)	<i>TP53</i> variant (VAF%)	Number of clonotypes	<i>IGH</i> clonotypes description and frequency (% of total reads)	
Anti-MAG	#1	WM	4	L265P (7%)	S338X *	WT	3	IGHV2-5/IGHJ4 (48.4%)	<b>IGHV4-34/IGHJ4 (15.5%)</b>
	#2	WM	70	L265P (19%)	WT	WT	2	IGHV3-23/IGHJ4 (81.2%)	IGHV3-11/IGHJ4 (1.6%)
	#3	WM	45	L265P (41%)	WT	WT	1	IGVH3-23/IGJH5 (50.8%)	
	#4	WM	25	L265P (7%)	WT	WT	1	IGHV3-23/IGHJ4 (70.2%)	
	#5	WM	15	L265P (5%)	WT	WT	0		
	#6	WM	12	L265P (4%)	WT	WT	2	IGHV3-11/IGHJ5 (5.6%)	<b>IGHV4-34/IGHJ4 (1.3%)</b>
	#7	WM	10	L265P *	WT	WT	2	IGHV1-69/IGHJ4 (6.9%)	<b>IGHV4-34/IGHJ6 (5.9%)</b>
	#8	WM	10	L265P *	WT	WT	0		
	#9	WM	12	WT	WT	WT	2	IGVH3-11/IGJH4 (25.3%)	IGVH3-33/IGJH4 (14.2%)
	#10	IgM-MGUS	0	L265P *	S338X *	R248Q (3%)	1	IGVH3-23/IGJH4 (1.0%)	
	#11	IgM-MGUS	0	L265P *	S338X *	WT	2	IGHV3-23/IGHJ3 (7.4%)	<b>IGHV4-34/IGHJ6 (3.2%)</b>
	#12	IgM-MGUS	5	L265P (3%)	WT	WT	0		
	#13	IgM-MGUS	0	L265P (3%)	WT	WT	1	IGVH3-11/IGJH4 (8.9%)	
	#14	IgM-MGUS	0	L265P (1%)	WT	WT	1	IGHV4-39/IGHJ4 (43.9%)	
	#15	IgM-MGUS	5	L265P *	WT	WT	2	IGHV6-1/IGHJ6 (16.3%)	IGHV3-11/IGHJ4 (8.7%)
	#16	IgM-MGUS	0	L265P *	WT	WT	1	IGHV3-11/IGHJ4 (32.6%)	
	#17	IgM-MGUS	0	L265P *	WT	WT	1	IGVH3-11/IGJH4 (1.2%)	
	#18	IgM-MGUS	0	L265P *	WT	WT	1	<b>IGHV4-34/IGHJ6 (22.0%)</b>	
	#19	IgM-MGUS	0	L265P *	WT	WT	0		
	#20	IgM-MGUS	0	WT	WT	WT	0		
	#21	IgM-MGUS	0	WT	WT	WT	0		
	#22	IgM-MGUS	0	WT	WT	WT	0		
	#23	IgM-MGUS	0	WT	WT	WT	0		
	#24	IgM-MGUS	0	WT	WT	WT	0		
	#25	MZL	55	L265P (20%)	WT	WT	2	IGHV3OR16-9/IGHJ4 (10,5%)	IGHV3-23/IGHJ4 (3,5%)
	#26	MBL	2	WT	WT	WT	2	<b>IGHV4-34/IGHJ4 (30.1%)</b>	<b>IGHV4-34/IGHJ4 (5.3%)</b>
CTL WM	#27	-	45	L265P (25%)	S338X (20%)	L206fs (23%)	1	IGHV3-11/IGHJ4 (77.5%)	
	#28	-	nd	L265P (3%)	S338X *	R259M (3%)	3	IGHV3-11/IGHJ6 (8.2%)	IGHV3-23/IGHJ4 (6.6%)

	#29	-	70	L265P (39%)	S338X (38%)	WT	3	IGHV3-7/IGHJ6 (7.9%)	IGHV3-23/IGHJ4 (7.2%)
	#30	-	80	L265P (23%)	T318fs (29%)	WT	1	IGHV3-23/IGHJ4 (88.8%)	
	#31	-	95	L265P (21%)	S338fs (21%)	WT	0		
	#32	-	95	L265P (14%)	S338X *	WT	2	IGHV3-11/IGHJ4 (70.2%)	IGHV3-23/IGHJ5 (4.3%)
	#33	-	10	L265P (6%)	p.S338X (5%)	WT	2	IGHV3-13/IGHJ6 (6.7%)	IGHV3-7/IGHJ5 (5.6%)
	#34	-	95	L265P (6%)	p.S338X (6%)	WT	3	IGHV3-11/IGHJ4 (29.1%)	<b>IGHV4-34/IGHJ5 (4.4%)</b>
	#35	-	80	L265P (4%)	p.S338X (4%)	WT	0		
	#36	-	15	L265P (9%)	S338X *	WT	3	IGVH3-23/IGJH4 (18.7%)	IGVH1-18/IGJH4 (2.3%)
	#37	-	40	L265P (7%)	S338X *	WT	2	IGHV3-30/IGHJ4 (16.0%)	IGHV3-48/IGHJ4 (4.9%)
	#38	-	5	L265P (5%)	S338X *	WT	0		
	#39	-	80	L265P (43%)	WT	WT	1	IGHV3-23/IGHJ4 (76.5%)	
	#40	-	60	L265P (27%)	WT	WT	3	IGVH3-7/IGJH6 (74.1%)	IGVH3-11/IGJH6 (4.5%)
	#41	-	25	L265P (14%)	WT	WT	2	IGVH3-23/IGJH5 (19.2%)	IGVH3-23/IGJH5 (5.3%)
	#42	-	20	L265P (14%)	WT	WT	2	IGHV3-23/IGHJ4 (6.0%)	IGHV3-23/IGHJ4 (4.3%)
	#43	-	10	L265P (9%)	WT	WT	1	IGHV1-8/IGHJ6 (6.3%)	
	#44	-	35	L265P (8%)	WT	WT	0		
	#45	-	nd	L265P (8%)	WT	WT	1	IGHV3-23/IGHJ2 (4.5%)	
	#46	-	30	L265P (7%)	WT	WT	3	IGVH3-11/IGJH6 (3.1%)	IGVH3-11/IGJH5 (1.7%)
	#47	-	20	L265P (6%)	WT	WT	2	IGHV6-1/IGHJ4 (2.3%)	IGHV3-11/IGHJ4 (2.0%)
	#48	-	10	L265P *	WT	WT	0		
	#49	-	50	L265P *	WT	WT	1	IGHV3-11/IGHJ4 (29.3%)	
	#50	-	10	WT	WT	WT	3	IGHV3-11/IGHJ6 (80.8%)	IGHV3-11/IGHJ6 (5.3%)
	#51	-	0	L265P (6%)	S338X (2%)	WT	0		
	#52	-	0	L265P (6%)	S338X (14%)	WT	0		
	#53	-	1	L265P (4%)	R334X (3%)	WT	0		
	#54	-	0	L265P (10%)	WT	WT	1	IGVH3-11/IGJH6 (2.2%)	
	#55	-	0	L265P (4%)	WT	WT	0		
CTL IgM-MGUS	#56	-	2	L265P (3%)	WT	WT	2	IGVH3-23/IGJH6 (6.2%)	IGVH2-5/IGJH6 (4.8%)
	#57	-	0	L265P (2%)	WT	WT	0		
	#58	-	1	L265P (2%)	WT	WT	1	IGVH5-51/IGJH6 (20.4%)	
	#59	-	nd	L265P *	WT	WT	0		
	#60	-	0	L265P *	WT	WT	0		
	#61	-	0	L265P *	WT	WT	1	IGVH3-11/IGJH5 (2.7%)	
	#62	-	nd	L265P *	WT	WT	2	IGVH3-23/IGJH4 (19.0%)	IGVH3-1/IGJH4 (1.8%)

#63	-	0	L265P *	WT	WT	1	IGVH2-5/IGJH5 (31.1%)	
#64	-	0	WT	WT	WT	2	IGVH16-9/IGJH4 (3.5%)	IGVH1-8/IGJH4 (1.7%)
#65	-	1	WT	WT	WT	0		
#66	-	nd	WT	WT	WT	2	IGVH3-11/IGJH4 (14.2%)	IGVH3-11/IGJH4 (2.3%)
#67	-	0	WT	WT	WT	0		
#68	-	0	WT	WT	WT	0		
#69	-	1	WT	WT	WT	1	IGVH4-39/IGJH4 (9.6%)	
#70	-	0	WT	WT	WT	0		
#71	-	0	WT	WT	WT	1	IGVH7-4/IGJH4 (20.2%)	
#72	-	0	WT	WT	WT	2	IGVH2-5/IGJH6 (6.3%)	IGVH3-23-IGJH6 (4.2%)

BM: bone marrow, FCM: flow cytometry, MBL: monoclonal B-cells lymphocytosis, MZL: marginal zone lymphoma, MGUS: monoclonal gammopathy of undetermined significance, WM: waldenstrom macroglobulinemia, WT: wild type, nd: not done

\* indicates variant only detected with allele specific PCR