

Determination of *MYD88*^{L265P} mutation fraction in IgM monoclonal gammopathies

Tina Bagratuni¹, Athina Markou², Dimitrios Patseas¹, Nefeli Mavrianou-Koutsoukou¹, Foteini

Aktypi¹, Christine Ivy Liacos¹, Aimilia D Sklirou³, Foteini Theodorakakou¹, Ioannis Ntanasis-

Stathopoulos¹, Maria Gavriatopoulou¹, Ioannis P. Trougkos³, Evi Lianidou², Evangelos Terpos¹,

Efstathios Kastritis¹, Meletios A. Dimopoulos¹

Supplemental information

Table 1: Test performance statistics in Cast-PCR, ddPCR and AS-PCR assays

	Cast-PCR		ddPCR		AS-PCR	
	Value	95% CI	Value	95% CI	Value	95% CI
Sensitivity	90.80%	82.68% to 95.95%	27.27%	6.02% to 60.97%	28.57%	3.67% to 70.96%
Specificity	87.50%	67.64% to 97.34%	100.00%	47.82% to 100.00%	100.00%	69.15% to 100.00%
Positive Likelihood Ratio	7.26	2.52 to 20.98	-	-	-	-
Negative Likelihood Ratio	0.11	0.05 to 0.21	0.73	0.51 to 1.04	0.71	0.45 to 1.14
Mutation prevalence (*)	90.00%		90.00%	-	90.00%	-
Positive Predictive Value (*)	98.49%	95.77% to 99.47%	100.00%	-	100.00%	-
Negative Predictive Value (*)	51.39%	34.94% to 67.55%	13.25%	9.62% to 17.99%	13.46%	8.87% to 19.91%
Accuracy (*)	90.47%	83.43% to 95.23%	34.55%	13.17% to 61.82%	35.71%	14.50% to 62.07%
True positive	79	-	3	-	2	-
True negative	21	-	5	-	10	-
False positive	3	-	0	-	0	-
False negative	8	-	8	-	5	-

Table 2: Test performance statistics in tDNA and cfDNA using Cast-PCR

	tDNA		cfDNA	
	Value	95% CI	Value	95% CI
Sensitivity	97.39%	92.57% to 99.46%	90.80%	82.68% to 95.95%
Specificity	92.31%	63.97% to 99.81%	87.50%	67.64% to 97.34%
Positive Likelihood Ratio	12.66	1.93 to 83.25	7.26	2.52 to 20.98
Negative Likelihood Ratio	0.03	0.01 to 0.09	0.11	0.05 to 0.21
Mutation prevalence (*)	90.00%		90.00%	
Positive Predictive Value (*)	99.13%	94.54% to 99.87%	98.49%	95.77% to 99.47%
Negative Predictive Value (*)	79.72%	56.00% to 92.39%	51.39%	34.94% to 67.55%
Accuracy (*)	96.88%	92.20% to 99.15%	90.47%	83.43% to 95.23%
True positive	112	-	79	-
True negative	12	-	21	-
False positive	1	-	3	-
False negative	3	-	8	-

Table 3: Treatment combination in patients with sequential sampling

THERAPY	PD ARM (N OF PATIENTS)	SD ARM (N OF PATIENTS)	PR/VGPR ARM (N OF PATIENTS)
DRC	6	4	6
IXAZOMIB-DEXAMETHASONE-RITUXIMAB	1		
DRC-BORTEZOMIB	1	1	
IBRUTINIB (AFTER DRC)			6
IBRUTINIB-RITUXIMAB-BORTEZOMIB			6
CYCLOPHOSPHAMIDE-FLUDARABINE-OFATUMUMAB			1