

Supplementary table (1): The list of the most promising epitopes and their correspondent binding MHC11 alleles along with their positions in the Fructose-bisphosphate aldolase [Madurella mycetomatis].

Core Sequence	Alleles	Peptide Sequence	Start	End	IC50	Rank
YIRAVAPIY	HLA-DQA1*04:01/DQB1*04:02	AAHYIRAVAPIYGVP	91	105	999	15.79
	HLA-DQA1*05:01/DQB1*02:01	AHYIRAVAPIYGVPV	92	106	586.5	12.96
	HLA-DQA1*05:01/DQB1*02:01	HYIRAVAPIYGVPVV	93	107	649	14.21
	HLA-DQA1*05:01/DQB1*02:01	YIRAVAPIYGVPVVL	94	108	698.4	15.16
	HLA-DQA1*05:01/DQB1*02:01	AAAHYIRAVAPIYGV	90	104	706.1	15.3
	HLA-DQA1*05:01/DQB1*02:01	IAAAHYIRAVAPIYG	89	103	707.2	15.32
	HLA-DQA1*05:01/DQB1*02:01	AIAAAHYIRAVAPIY	88	102	753.6	16.18
	HLA-DQA1*05:01/DQB1*02:01	AAHYIRAVAPIYGVP	91	105	759.8	16.3
	HLA-DRB1*01:01	AAAHYIRAVAPIYGV	90	104	6.5	2.18
	HLA-DRB1*01:01	AAHYIRAVAPIYGVP	91	105	7.1	2.73
	HLA-DRB1*01:01	IAAAHYIRAVAPIYG	89	103	8.1	3.63
	HLA-DRB1*01:01	AHYIRAVAPIYGVPV	92	106	8.3	3.8
	HLA-DRB1*01:01	AIAAAHYIRAVAPIY	88	102	9.9	5.11
	HLA-DRB1*01:01	HYIRAVAPIYGVPVV	93	107	10	5.19
	HLA-DRB1*04:01	AAHYIRAVAPIYGVP	91	105	122.2	9.81
	HLA-DRB1*04:01	AAAHYIRAVAPIYGV	90	104	132.6	10.58
	HLA-DRB1*04:01	IAAAHYIRAVAPIYG	89	103	156.4	12.23
	HLA-DRB1*04:01	AIAAAHYIRAVAPIY	88	102	175.8	13.49
	HLA-DRB1*04:01	AHYIRAVAPIYGVPV	92	106	196	14.75
	HLA-DRB1*04:01	HYIRAVAPIYGVPVV	93	107	313	21.04
	HLA-DRB1*04:01	YIRAVAPIYGVPVVL	94	108	520.4	29.56
	HLA-DRB1*04:05	AIAAAHYIRAVAPIY	88	102	110.8	10.5
	HLA-DRB1*04:05	AAAHYIRAVAPIYGV	90	104	112	10.61
	HLA-DRB1*04:05	IAAAHYIRAVAPIYG	89	103	118	11.08
	HLA-DRB1*04:05	AAHYIRAVAPIYGVP	91	105	158.3	13.95
	HLA-DRB1*04:05	AHYIRAVAPIYGVPV	92	106	199.8	16.55

HLA-DRB1*04:05	HYIRAVAPIYGVPPVV	93	107	362.2	24.39
HLA-DRB1*04:05	YIRAVAPIYGVPPVL	94	108	446.1	27.5
HLA-DRB1*07:01	IAAAHYIRAVAPIYG	89	103	117.1	15.69
HLA-DRB1*07:01	AAAHYIRAVAPIYGV	90	104	117.3	15.71
HLA-DRB1*07:01	AIAAAHYIRAVAPIY	88	102	122.2	16.1
HLA-DRB1*07:01	AAHYIRAVAPIYGV	91	105	178.4	20.12
HLA-DRB1*08:02	AHYIRAVAPIYGV	92	106	16.2	0.03
HLA-DRB1*08:02	AAHYIRAVAPIYGV	91	105	16.3	0.03
HLA-DRB1*08:02	HYIRAVAPIYGV	93	107	19.4	0.05
HLA-DRB1*08:02	AAAHYIRAVAPIYGV	90	104	21.2	0.06
HLA-DRB1*08:02	YIRAVAPIYGV	94	108	29.8	0.15
HLA-DRB1*09:01	AAHYIRAVAPIYGV	91	105	14.1	0.4
HLA-DRB1*09:01	AAAHYIRAVAPIYGV	90	104	15	0.45
HLA-DRB1*09:01	AHYIRAVAPIYGV	92	106	16.5	0.55
HLA-DRB1*09:01	IAAAHYIRAVAPIYG	89	103	18.7	0.69
HLA-DRB1*09:01	HYIRAVAPIYGV	93	107	25.6	1.22
HLA-DRB1*09:01	AIAAAHYIRAVAPIY	88	102	26.2	1.28
HLA-DRB1*09:01	YIRAVAPIYGV	94	108	55.7	3.69
HLA-DRB1*11:01	AAHYIRAVAPIYGV	91	105	28.6	5.26
HLA-DRB1*11:01	AHYIRAVAPIYGV	92	106	38.9	6.95
HLA-DRB1*11:01	AAAHYIRAVAPIYGV	90	104	44.3	7.76
HLA-DRB1*11:01	IAAAHYIRAVAPIYG	89	103	57.8	9.5
HLA-DRB1*11:01	HYIRAVAPIYGV	93	107	66.1	10.45
HLA-DRB1*11:01	AIAAAHYIRAVAPIY	88	102	81.1	12.03
HLA-DRB1*11:01	YIRAVAPIYGV	94	108	134.2	16.34
HLA-DRB1*15:01	AAAHYIRAVAPIYGV	90	104	56.8	5.82
HLA-DRB1*15:01	AHYIRAVAPIYGV	92	106	64.2	6.6
HLA-DRB1*15:01	AAHYIRAVAPIYGV	91	105	66.6	6.83
HLA-DRB1*15:01	IAAAHYIRAVAPIYG	89	103	69.6	7.14
HLA-DRB1*15:01	YIRAVAPIYGV	94	108	74.5	7.62
HLA-DRB1*15:01	HYIRAVAPIYGV	93	107	75.9	7.76
HLA-DRB1*15:01	AIAAAHYIRAVAPIY	88	102	94.2	9.42
HLA-DRB5*01:01	AAAHYIRAVAPIYGV	90	104	19.1	4.67

	HLA-DRB5*01:01	AAHYIRAVAPIYGVP	91	105	21	5.1
	HLA-DRB5*01:01	AIAAAHYIRAVAPIY	88	102	23.8	5.7
	HLA-DRB5*01:01	IAAAHYIRAVAPIYG	89	103	26.2	6.17
	HLA-DRB5*01:01	AHYIRAVAPIYGVPPV	92	106	30	6.86
	HLA-DRB5*01:01	HYIRAVAPIYGVPPV	93	107	49.1	9.87
	HLA-DRB5*01:01	YIRAVAPIYGVPPVL	94	108	87.8	14.2
FFKEHGVPL	HLA-DPA1*01/DPB1*04:01	EAFFKEHGVPLFSSH	129	143	899.3	20.6
	HLA-DPA1*01/DPB1*04:01	AFFKEHGVPLFSSHM	130	144	921	20.86
	HLA-DPA1*01/DPB1*04:01	DEAFFKEHGVPLFSS	128	142	939	21.08
	HLA-DPA1*01/DPB1*04:01	FFKEHGVPLFSSHMI	131	145	973.7	21.5
	HLA-DPA1*01:03/DPB1*02:01	MDADEAFFKEHGVPL	125	139	352.2	17.8
	HLA-DPA1*01:03/DPB1*02:01	DADEAFFKEHGVPLF	126	140	378.2	18.51
	HLA-DPA1*01:03/DPB1*02:01	ADEAFFKEHGVPLFS	127	141	452.9	20.39
	HLA-DPA1*01:03/DPB1*02:01	DEAFFKEHGVPLFSS	128	142	487.9	21.21
	HLA-DPA1*01:03/DPB1*02:01	EAFFKEHGVPLFSSH	129	143	554.4	22.69
	HLA-DPA1*01:03/DPB1*02:01	AFFKEHGVPLFSSHM	130	144	880	28.62
	HLA-DPA1*02:01/DPB1*01:01	EAFFKEHGVPLFSSH	129	143	457.5	29.34
	HLA-DPA1*02:01/DPB1*01:01	AFFKEHGVPLFSSHM	130	144	495.2	30.57
	HLA-DPA1*02:01/DPB1*01:01	DEAFFKEHGVPLFSS	128	142	502.2	30.79
	HLA-DPA1*02:01/DPB1*01:01	ADEAFFKEHGVPLFS	127	141	706.8	36.47
	HLA-DPA1*02:01/DPB1*01:01	DADEAFFKEHGVPLF	126	140	745.5	37.39
	HLA-DPA1*03:01/DPB1*04:02	EAFFKEHGVPLFSSH	129	143	248.2	16.63
	HLA-DPA1*03:01/DPB1*04:02	FFKEHGVPLFSSHMI	131	145	266.3	17.27
	HLA-DPA1*03:01/DPB1*04:02	DEAFFKEHGVPLFSS	128	142	267.4	17.31
	HLA-DPA1*03:01/DPB1*04:02	AFFKEHGVPLFSSHM	130	144	268.2	17.34
	HLA-DPA1*03:01/DPB1*04:02	ADEAFFKEHGVPLFS	127	141	425.2	21.86
	HLA-DPA1*03:01/DPB1*04:02	DADEAFFKEHGVPLF	126	140	708.1	27.57
	HLA-DQA1*05:01/DQB1*03:01	DADEAFFKEHGVPLF	126	140	919	46.4
	HLA-DRB1*01:01	DEAFFKEHGVPLFSS	128	142	8	3.54
	HLA-DRB1*01:01	EAFFKEHGVPLFSSH	129	143	8.5	3.97
	HLA-DRB1*01:01	ADEAFFKEHGVPLFS	127	141	10.1	5.27
	HLA-DRB1*01:01	AFFKEHGVPLFSSHM	130	144	10.8	5.8

HLA-DRB1*01:01	DADEAFFKEHGVPLF	126	140	13.9	7.92
HLA-DRB1*01:01	FFKEHGVPLFSSHMI	131	145	15.9	9.13
HLA-DRB1*01:01	MDADEAFFKEHGVPL	125	139	28.8	15.03
HLA-DRB1*04:01	DEAFFKEHGVPLFSS	128	142	64.9	5.18
HLA-DRB1*04:01	EAFFKEHGVPLFSSH	129	143	77.2	6.25
HLA-DRB1*04:01	AFFKEHGVPLFSSHM	130	144	81.2	6.58
HLA-DRB1*04:01	ADEAFFKEHGVPLFS	127	141	87.3	7.08
HLA-DRB1*04:01	FFKEHGVPLFSSHMI	131	145	108.4	8.77
HLA-DRB1*04:01	DADEAFFKEHGVPLF	126	140	128.4	10.27
HLA-DRB1*04:01	MDADEAFFKEHGVPL	125	139	177.2	13.57
HLA-DRB1*04:04	AFFKEHGVPLFSSHM	130	144	817.6	43.51
HLA-DRB1*04:04	EAFFKEHGVPLFSSH	129	143	963.5	46.51
HLA-DRB1*04:05	DEAFFKEHGVPLFSS	128	142	852.1	38.42
HLA-DRB1*04:05	ADEAFFKEHGVPLFS	127	141	907	39.56
HLA-DRB1*04:05	DADEAFFKEHGVPLF	126	140	977.6	40.95
HLA-DRB1*07:01	DADEAFFKEHGVPLF	126	140	11	1.88
HLA-DRB1*07:01	ADEAFFKEHGVPLFS	127	141	15.2	2.85
HLA-DRB1*07:01	MDADEAFFKEHGVPL	125	139	16.6	3.12
HLA-DRB1*07:01	DEAFFKEHGVPLFSS	128	142	23.3	4.5
HLA-DRB1*07:01	EAFFKEHGVPLFSSH	129	143	32.6	6.14
HLA-DRB1*07:01	FFKEHGVPLFSSHMI	131	145	35.9	6.61
HLA-DRB1*07:01	AFFKEHGVPLFSSHM	130	144	40.6	7.29
HLA-DRB1*09:01	DEAFFKEHGVPLFSS	128	142	204.3	13.18
HLA-DRB1*09:01	EAFFKEHGVPLFSSH	129	143	210.3	13.49
HLA-DRB1*09:01	ADEAFFKEHGVPLFS	127	141	259.7	15.89
HLA-DRB1*09:01	DADEAFFKEHGVPLF	126	140	363	20.49
HLA-DRB1*11:01	DEAFFKEHGVPLFSS	128	142	665.1	34.89
HLA-DRB1*11:01	EAFFKEHGVPLFSSH	129	143	941.1	39.86
HLA-DRB1*11:01	ADEAFFKEHGVPLFS	127	141	954.1	40.06
HLA-DRB1*13:02	DEAFFKEHGVPLFSS	128	142	105.4	6.3
HLA-DRB1*13:02	ADEAFFKEHGVPLFS	127	141	130.4	7.33
HLA-DRB1*13:02	EAFFKEHGVPLFSSH	129	143	138.4	7.65

	HLA-DRB1*13:02	DADEAFFKEHGVPLF	126	140	169.9	8.83
	HLA-DRB1*13:02	AFFKEHGVPLFSSHM	130	144	236.6	10.94
	HLA-DRB1*13:02	MDADEAFFKEHGVPL	125	139	314.1	13.11
	HLA-DRB1*13:02	FFKEHGVPLFSSHMI	131	145	393.2	15.05
	HLA-DRB1*15:01	DEAFFKEHGVPLFSS	128	142	409	26.15
	HLA-DRB1*15:01	ADEAFFKEHGVPLFS	127	141	419	26.48
	HLA-DRB1*15:01	EAFFKEHGVPLFSSH	129	143	462.5	27.92
	HLA-DRB1*15:01	DADEAFFKEHGVPLF	126	140	486.5	28.65
	HLA-DRB1*15:01	MDADEAFFKEHGVPL	125	139	843.8	37.28
	HLA-DRB3*01:01	DADEAFFKEHGVPLF	126	140	321.7	9.06
	HLA-DRB3*01:01	DEAFFKEHGVPLFSS	128	142	326	9.14
	HLA-DRB3*01:01	MDADEAFFKEHGVPL	125	139	354.6	9.61
	HLA-DRB5*01:01	DEAFFKEHGVPLFSS	128	142	84.3	13.86
	HLA-DRB5*01:01	ADEAFFKEHGVPLFS	127	141	94.5	14.81
	HLA-DRB5*01:01	EAFFKEHGVPLFSSH	129	143	103.8	15.61
	HLA-DRB5*01:01	DADEAFFKEHGVPLF	126	140	113.4	16.39
	HLA-DRB5*01:01	AFFKEHGVPLFSSHM	130	144	138	18.22
	HLA-DRB5*01:01	MDADEAFFKEHGVPL	125	139	170.7	20.33
	HLA-DRB5*01:01	FFKEHGVPLFSSHMI	131	145	201.8	22.08
IYQALSKIS	HLA-DPA1*02:01/DPB1*01:01	IWDIYQALSKISPYF	204	218	195.1	17.42
	HLA-DPA1*02:01/DPB1*01:01	WDIYQALSKISPYFS	205	219	321.8	24.06
	HLA-DPA1*02:01/DPB1*01:01	DIYQALSKISPYFSI	206	220	384.7	26.64
	HLA-DPA1*02:01/DPB1*01:01	IYQALSKISPYFSIA	207	221	493.1	30.5
	HLA-DPA1*03:01/DPB1*04:02	IWDIYQALSKISPYF	204	218	559.2	24.86
	HLA-DPA1*03:01/DPB1*04:02	WDIYQALSKISPYFS	205	219	693.8	27.33
	HLA-DPA1*03:01/DPB1*04:02	DIYQALSKISPYFSI	206	220	895.4	30.46
	HLA-DPA1*03:01/DPB1*04:02	IYQALSKISPYFSIA	207	221	912.4	30.69
	HLA-DQA1*01:02/DQB1*06:02	IWDIYQALSKISPYF	204	218	513.8	27.78
	HLA-DQA1*05:01/DQB1*03:01	IWDIYQALSKISPYF	204	218	90.5	13.9
	HLA-DQA1*05:01/DQB1*03:01	DIYQALSKISPYFSI	206	220	92.1	14.05
	HLA-DQA1*05:01/DQB1*03:01	WDIYQALSKISPYFS	205	219	92.9	14.14
	HLA-DQA1*05:01/DQB1*03:01	IYQALSKISPYFSIA	207	221	97.8	14.61
	HLA-DQA1*05:01/DQB1*03:01	DIWDIYQALSKISPY	203	217	113.4	16.11

HLA-DQA1*05:01/DQB1*03:01	EDIWDIYQALSKISP	202	216	141.6	18.48
HLA-DQA1*05:01/DQB1*03:01	PEDIWDIYQALSKIS	201	215	173.7	20.84
HLA-DRB1*01:01	IWDIYQALSKISPYF	204	218	13.1	7.41
HLA-DRB1*01:01	WDIYQALSKISPYFS	205	219	24.3	13.25
HLA-DRB1*01:01	DIWDIYQALSKISPY	203	217	25.9	13.91
HLA-DRB1*01:01	IYQALSKISPYFSIA	207	221	43.6	19.62
HLA-DRB1*01:01	DIYQALSKISPYFSI	206	220	49.1	21.03
HLA-DRB1*01:01	PEDIWDIYQALSKIS	201	215	62.7	24.03
HLA-DRB1*01:01	EDIWDIYQALSKISP	202	216	77.2	26.69
HLA-DRB1*03:01	IWDIYQALSKISPYF	204	218	634.7	16.07
HLA-DRB1*03:01	DIWDIYQALSKISPY	203	217	885.1	19.32
HLA-DRB1*04:01	IWDIYQALSKISPYF	204	218	362.8	23.33
HLA-DRB1*04:01	DIWDIYQALSKISPY	203	217	663.3	34.18
HLA-DRB1*04:01	EDIWDIYQALSKISP	202	216	811.6	38.38
HLA-DRB1*04:01	PEDIWDIYQALSKIS	201	215	980.4	42.51
HLA-DRB1*04:05	IWDIYQALSKISPYF	204	218	367.8	24.6
HLA-DRB1*04:05	EDIWDIYQALSKISP	202	216	399.2	25.81
HLA-DRB1*04:05	PEDIWDIYQALSKIS	201	215	454.1	27.76
HLA-DRB1*07:01	PEDIWDIYQALSKIS	201	215	177	20.03
HLA-DRB1*07:01	WDIYQALSKISPYFS	205	219	190.8	20.86
HLA-DRB1*07:01	IWDIYQALSKISPYF	204	218	198.1	21.31
HLA-DRB1*07:01	DIWDIYQALSKISPY	203	217	207.4	21.79
HLA-DRB1*07:01	EDIWDIYQALSKISP	202	216	215.6	22.22
HLA-DRB1*09:01	IWDIYQALSKISPYF	204	218	99.2	6.87
HLA-DRB1*09:01	PEDIWDIYQALSKIS	201	215	229.9	14.46
HLA-DRB1*11:01	IWDIYQALSKISPYF	204	218	16.2	2.75
HLA-DRB1*11:01	DIWDIYQALSKISPY	203	217	26.2	4.83
HLA-DRB1*11:01	EDIWDIYQALSKISP	202	216	38.1	6.83
HLA-DRB1*11:01	PEDIWDIYQALSKIS	201	215	75.7	11.49
HLA-DRB1*15:01	DIWDIYQALSKISPY	203	217	286	21.31
HLA-DRB1*15:01	EDIWDIYQALSKISP	202	216	334.9	23.39
HLA-DRB1*15:01	PEDIWDIYQALSKIS	201	215	341.3	23.65
HLA-DRB4*01:01	IWDIYQALSKISPYF	204	218	249	16.96

HLA-DRB4*01:01	DIYQALSKISPYFSI	206	220	444.6	25.43
HLA-DRB4*01:01	WDIYQALSKISPYFS	205	219	449.2	25.6
HLA-DRB4*01:01	IYQALSKISPYFSIA	207	221	551.9	29.15
HLA-DRB5*01:01	IWDIYQALSKISPYF	204	218	50.3	10.03
HLA-DRB5*01:01	DIWDIYQALSKISPY	203	217	67.2	12.09
HLA-DRB5*01:01	WDIYQALSKISPYFS	205	219	74	12.84
HLA-DRB5*01:01	PEDIWDIYQALSKIS	201	215	78.2	13.27
HLA-DRB5*01:01	EDIWDIYQALSKISP	202	216	82	13.64
HLA-DRB5*01:01	DIYQALSKISPYFSI	206	220	109.7	16.1
HLA-DRB5*01:01	IYQALSKISPYFSIA	207	221	121.4	17.01
