



ANALISI DI PATTERN ANTICORPALI

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PENSARE PER EPITOPI E' IMPORTANTE:

- PER COMPRENDERE LA RISPOSTA ANTICORPALE RISPETTO AD UN DETERMINATO MM
- NEI PAZIENTI IMMUNIZZATI PER DEFINIRE I MM ACCETTABILI

PAZIENTE 1

► MASCHIO

► 2 TRAPIANTI

1990

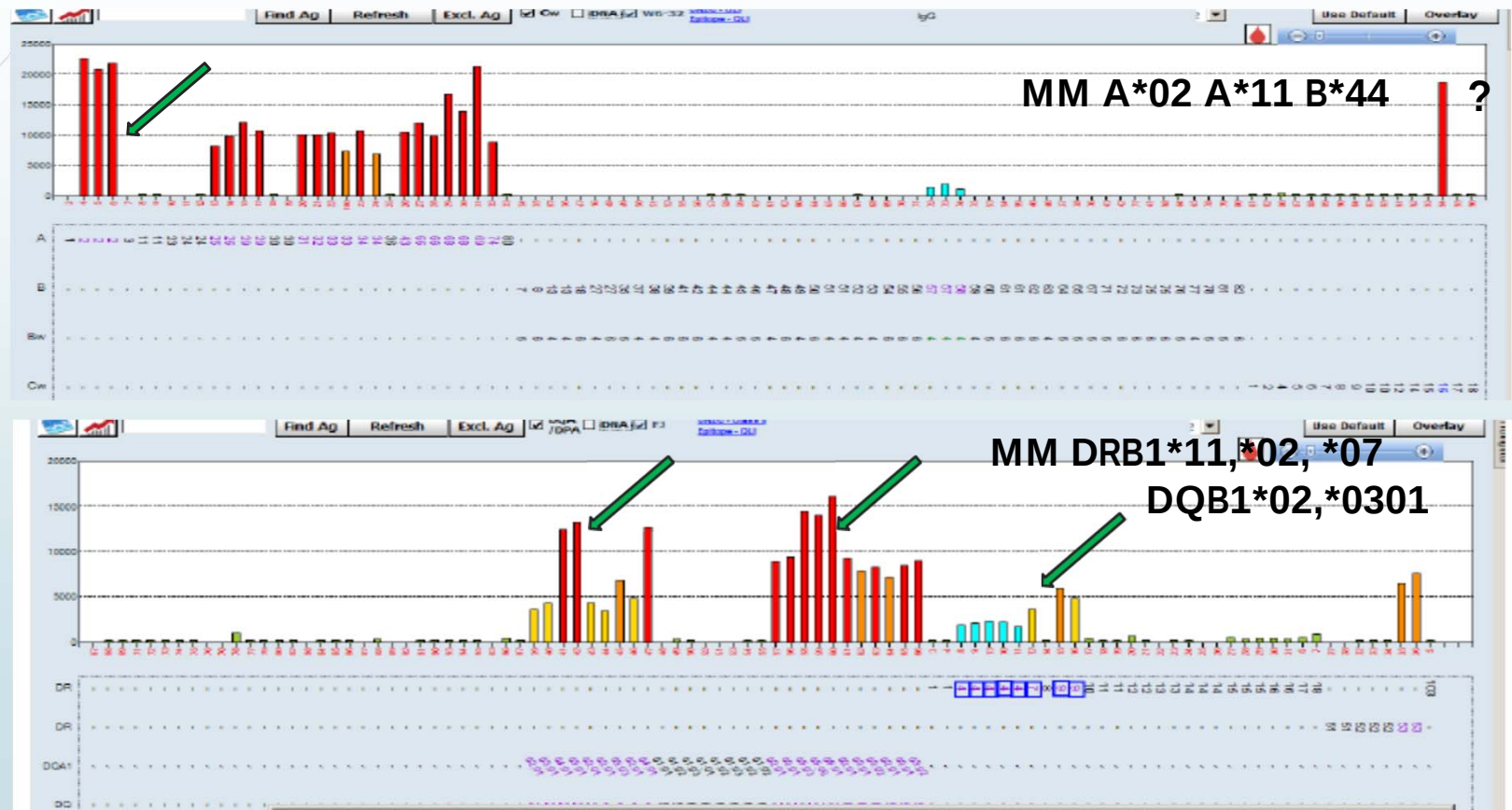
TIPIZZAZIONE									
ABO:	0 -	HLA:	A 2	X	B 44	35	C		
			DR 2	5	DRB1*02	11	DQA1*		
			DQB1*		DP				
			Storia ...				Dettaglio ...		

2000

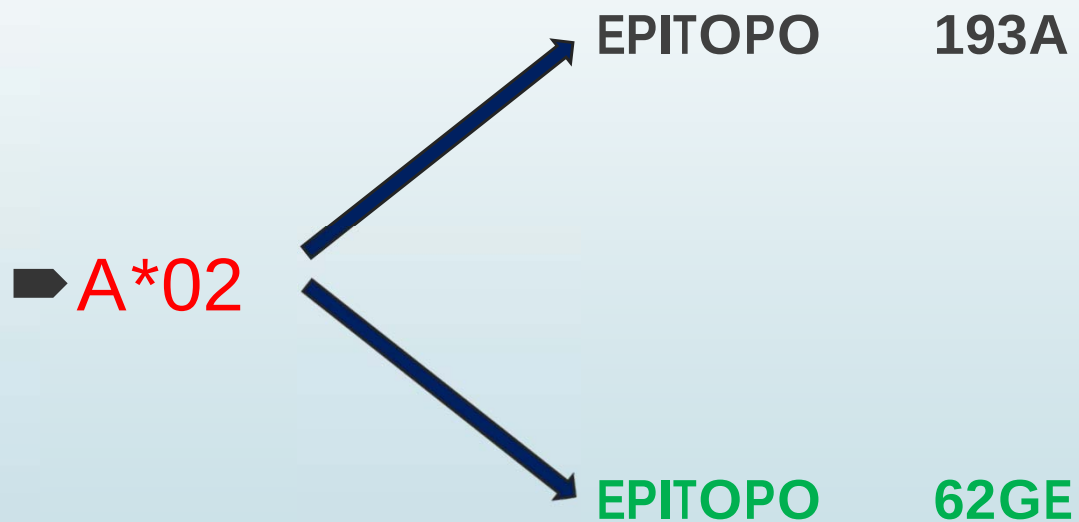
TIPIZZAZIONE									
ABO:	0 +	HLA:	A 24	11	B 35	Y	C		
			DR 1	7	DRB1*01	07	DQA1*		
			DQB1*		DP				
			Storia ...				Dettaglio ...		

HLA: A*03,*24; B*38,*35; DRB1*01,*13; DQB1*05,*06

SITUAZIONE IMMUNOLOGICA



Il MM A*02 stimola la produzione degli anticorpi



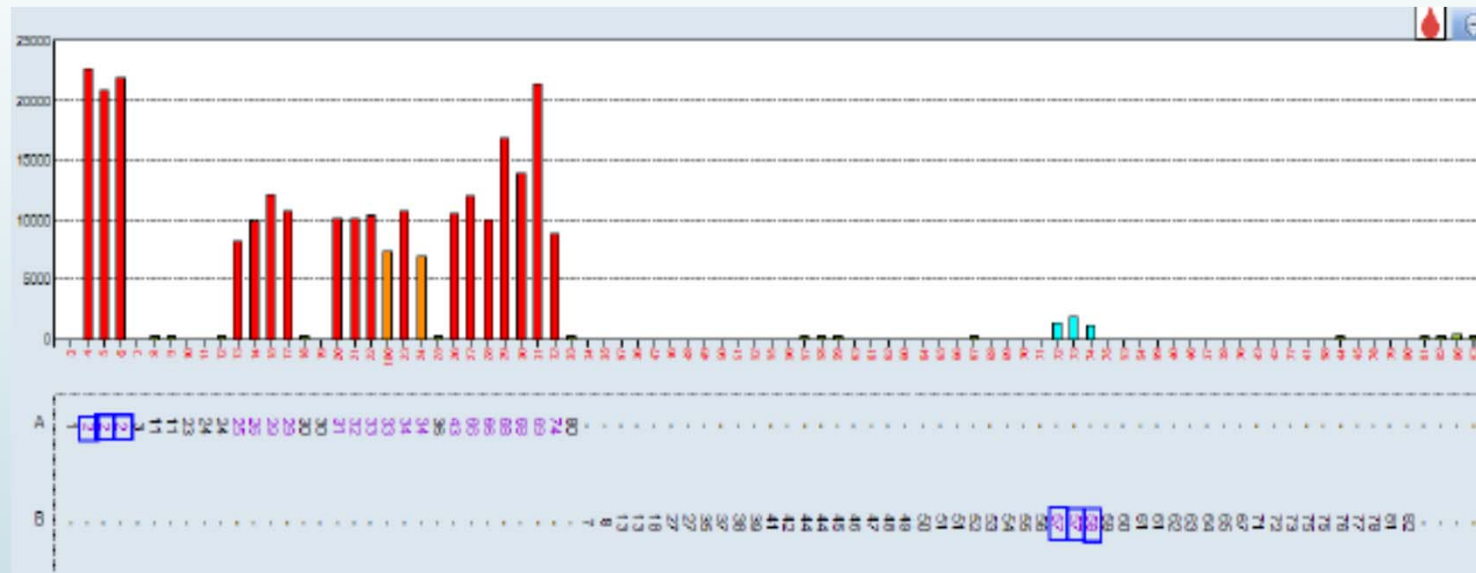
ALLELI LUMINEX DELL'EPITOPO 193A

A*02:05, A*02:06, A*25:01, A*26:01, A*29:01, A*29:02, A*31:01,
A*32:01, A*33:01, A*33:03, A*34:01, A*34:02, A*43:01, A*66:01,
A*66:02, A*68:01, A*68:02, A*69:01, A*74:01



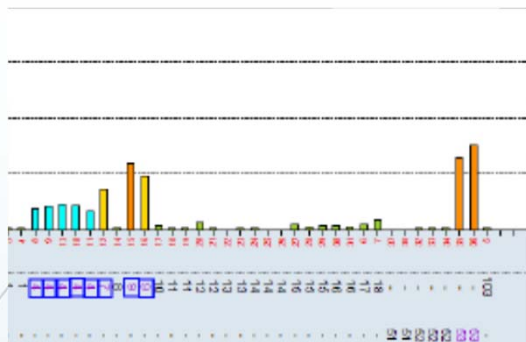
ALLELI LUMINEX DELL'EPITOPO 62GE

A*02:01, A*02:02, A*02:03, A*02:05, A*02:06, B*57:01,
B*57:03, B*58:01

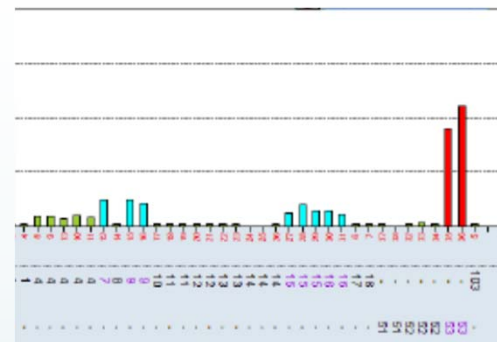


CLASSE II: più MM stimolano la risposta immunologica

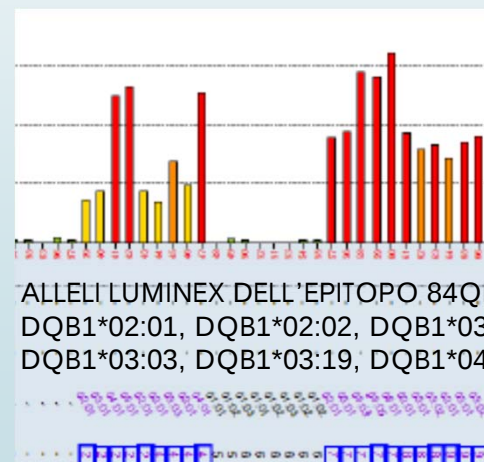
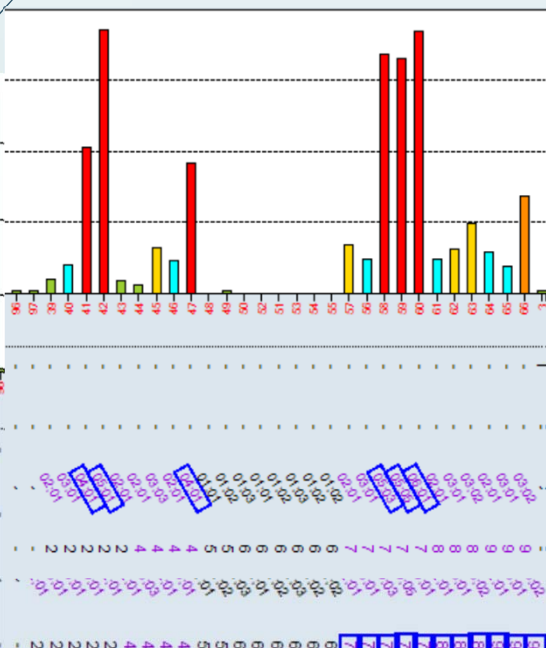
- ➡ DRB1*07 → EPITOPO 4Q/98E
- ➡ DQ7 → EPITOPO 55P
- ➡ DQ2 → EPITOPO 84Q
- ➡ DQA1*05 → EPITOPO 52R
- ➡ DR15/16 ???



ALLELI LUMINEX DELL'EPITOPO 98E
 DRB1*04:01, DRB1*04:02, DRB1*04:03,
 DRB1*04:04, DRB1*04:05, DRB1*07:01,
 DRB1*09:01, DRB1*09:02



ALLELI LUMINEX DELL'EPITOPO 4Q
 DRB1*07:01, DRB1*09:01,
 DRB4*01:01, DRB4*01:03



ALLELI LUMINEX DELL'EPITOPO 84QL3
 DQB1*02:01, DQB1*02:02, DQB1*03:01, DQB1*03:02,
 DQB1*03:03, DQB1*03:19, DQB1*04:01, DQB1*04:02

ALLELI LUMINEX DELL'EPITOPO 40GR3
 DQA1*04:01, DQA1*05:01,
 DQA1*05:03, DQA1*05:05, DQA1*06:01

PAZIENTE 2

➤ MASCHIO

➤ 1 TRAPIANTO

ABO:

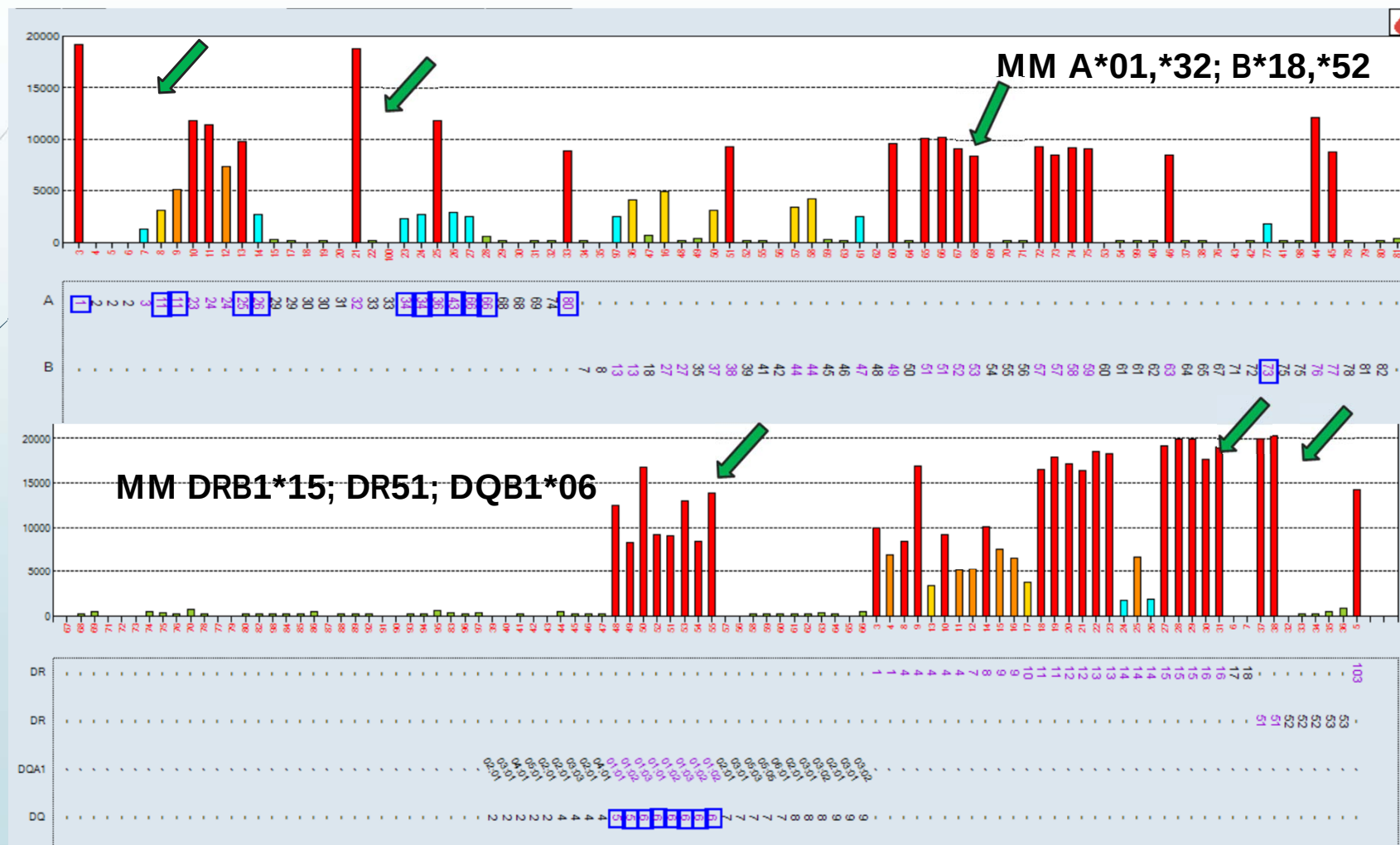
HLA: A B C DP

DRB1* DR DQA1* DQB1*

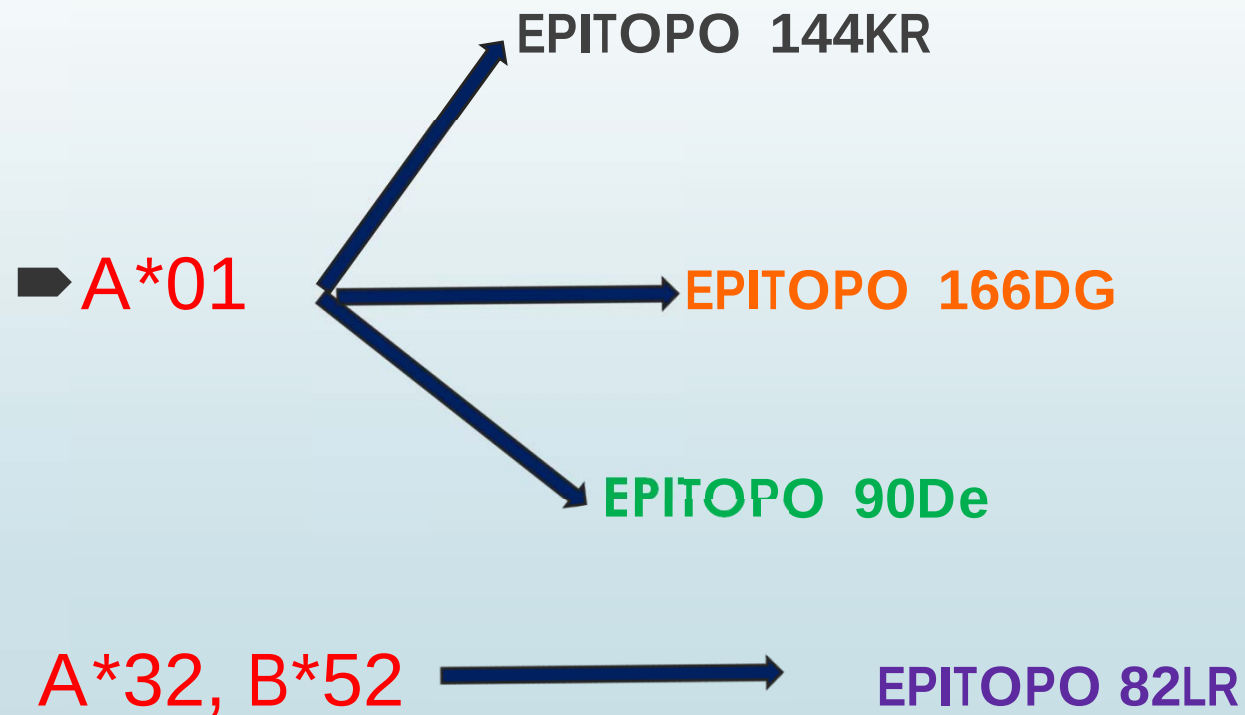
Locus	Descrizione	Risultato	Data
HLA_A	HLA sierologico locus A1	1	11/12/2008
HLA_A	HLA sierologico locus A2	32	11/12/2008
HLA_A	HLA genomico b.r. A 1	01	11/12/2008
HLA_A	HLA genomico b.r. A 2	32	11/12/2008
HLA_B	HLA sierologico locus B1	5	11/12/2008
HLA_B	HLA sierologico locus B2	18	11/12/2008
HLA_B	HLA sierologico locus B3	46	11/12/2008
HLA_B	HLA genomico b.r. B1	18	11/12/2008
HLA_B	HLA genomico b.r. B2	52	11/12/2008
HLA_B	HLA genomico b.r. B3	46	11/12/2008
HLA_DQA	Hla gen. alta risoluzione DQA1	01:03	27/02/2012
HLA_DQA	Hla gen. alta risoluzione DQA2	05:01	27/02/2012
HLA_DQB	Hla gen. alta risoluzione DQB1	02:01	27/02/2012
HLA_DQB	Hla gen. alta risoluzione DQB2	06	27/02/2012
HLA_DR	HLA genomico b.r. DRB 1 1	03	11/12/2008

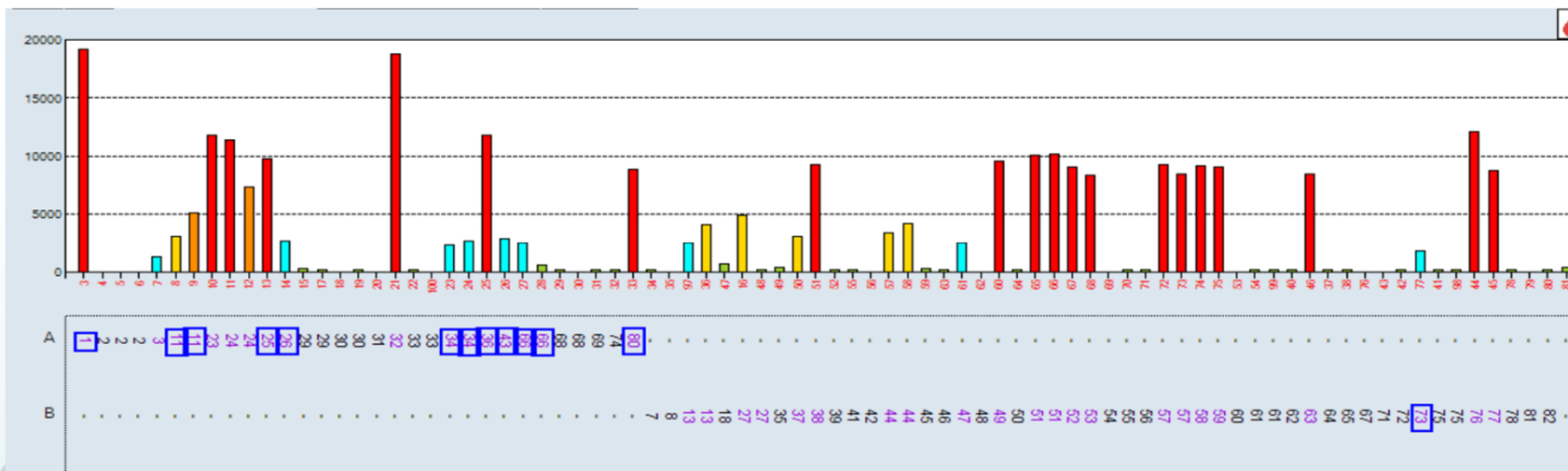
➤ HLA: A*68,*30; B*71,*42; DRB1*03; (DQB1*02)

SITUAZIONE IMMUNOLOGICA



Il MM A*01 stimola la produzione degli anticorpi





► ALLELI LUMINEX DELL'EPITOPO 90De

A*01:01, A*11:01, A*11:02, A*25:01, A*26:01, A*34:01, A*34:02, A*36:01, A*43:01, A*66:01, A*80:01, B*73:01

ALLELI LUMINEX DELL'EPITOPO 166DG

A*01:01, A*23:01, A*23:02, A*24:02, A*80:01, B*15:12

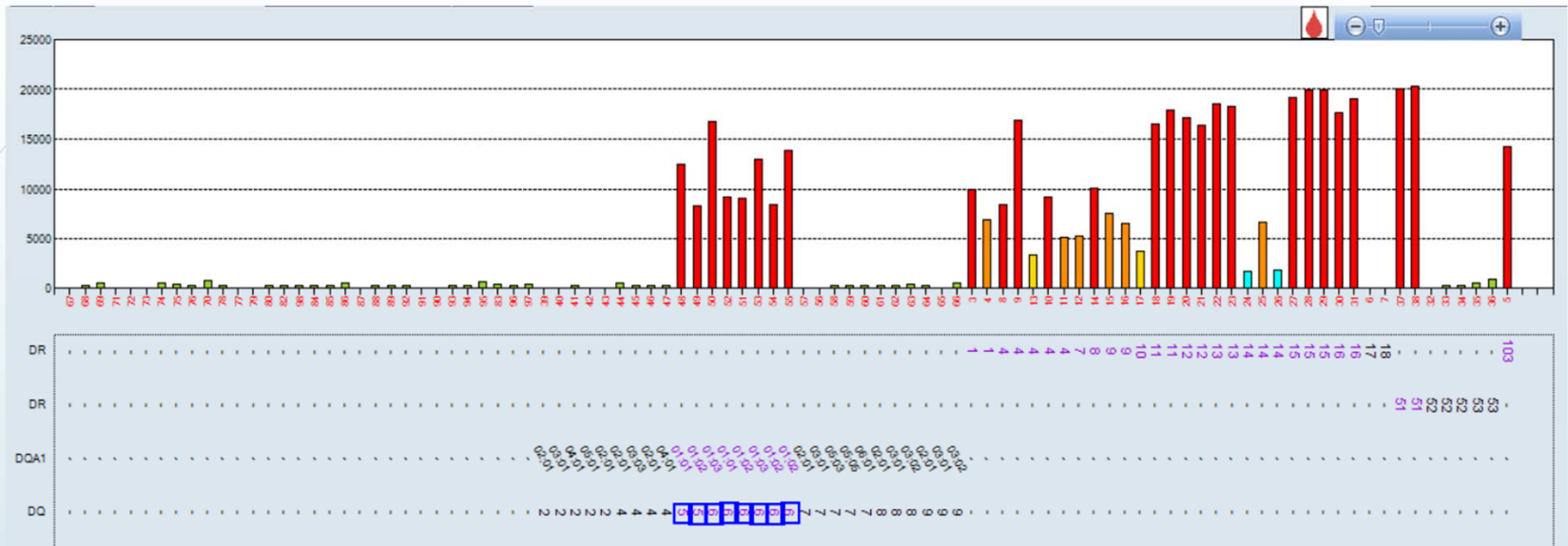
ALLELI LUMINEX DELL'EPITOPO 144KR

A*01:01, A*03:01, A*11:01, A*11:02, A*24:02, A*24:03, A*36:01, A*80:01

ALLELI LUMINEX DELL'EPITOPO 82LR

A*23:01, A*23:02, A*24:02, A*24:03, A*25:01, A*32:01, B*13:01, B*13:02, B*15:13, B*15:16, B*27:03, B*27:05, B*37:01, B*38:01, B*44:02, B*44:03, B*47:01, B*49:01, B*51:01, B*51:02, B*52:01, B*53:01, B*57:01, B*57:03, B*58:01, B*59:01

CLASSE II

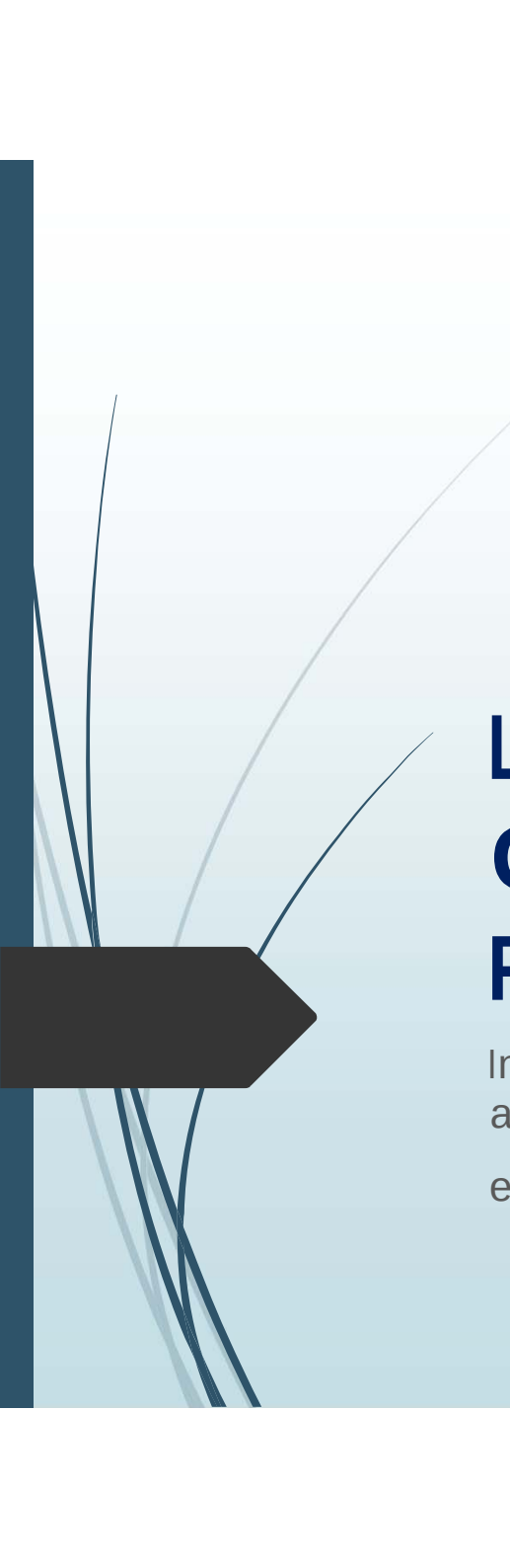


ALLELI LUMINEX DELL'EPITOPO 77T

DRB1*01:01, DRB1*01:02, DRB1*01:03, DRB1*04:01, DRB1*04:02, DRB1*04:03, DRB1*04:04, DRB1*04:05, DRB1*07:01, DRB1*08:01, DRB1*08:02, DRB1*09:01, DRB1*09:02, DRB1*10:01, DRB1*11:01, DRB1*11:04, DRB1*12:01, DRB1*12:02, DRB1*13:01, DRB1*13:02, DRB1*13:03, DRB1*14:01, DRB1*14:02, DRB1*14:04, DRB1*14:54, DRB1*15:01, DRB1*15:02, DRB1*15:03, DRB1*16:01, DRB1*16:02, DRB4*01:01, DRB4*01:03, DRB5*01:01, DRB5*02:02

ALLELI LUMINEX DELL'EPITOPO 85VA

DQB1*05:01, DQB1*05:02, DQB1*05:03, DQB1*06:01, DQB1*06:02, DQB1*06:03



L'ASSEGNAZIONE PER EPITOPI PUO' GUIDARE NELL'ASSEGNAZIONE DI FALSI POSITIVI?

In ricerca di anticorpi con metodologia Luminex ci si imbatte in positività anticorpali non riconosciute da alcun epitopo codificato

epregistry.com.br



Casistica:

700 campioni testati con SAB classe I e II
1/3/18-1/06/18

SPECIFICITA'	N°	%
A*32:01	4	0,5
A*11:02	23	3,3
DQA1*05:01	37	5,3

PAZIENTE 3

➤ MASCHIO

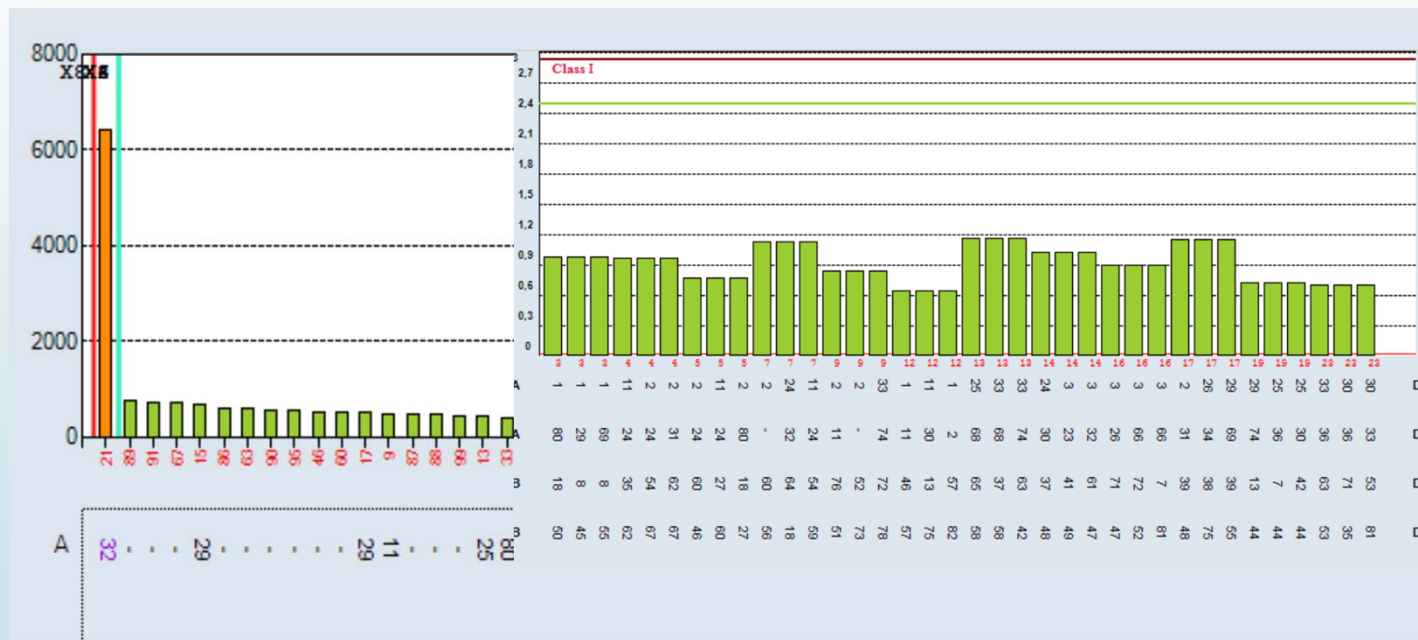
➤ 1 TRAPIANTO

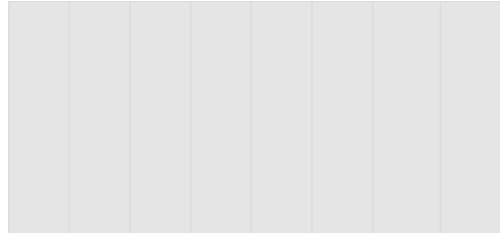
ABO:	0 +								
HLA:	A	2	68	B	44	51	C		DP
	DRB1*	9	16	DR			DQA1*		DQB1*
Locus	Descrizione		Risultato		Data				
HLA_A	HLA sierologico locus A1		2		27/05/2011				
HLA_A	HLA sierologico locus A2		68		27/05/2011				
HLA_A	HLA genomico b.r. A 1		02		27/05/2011				
HLA_A	HLA genomico b.r. A 2		68		27/05/2011				
HLA_B	HLA sierologico locus B1		44		27/05/2011				
HLA_B	HLA sierologico locus B2		51		27/05/2011				
HLA_B	HLA sierologico locus B3		4		27/05/2011				
HLA_B	HLA genomico b.r.B1		44		27/05/2011				
HLA_B	HLA genomico b.r.B2		51		27/05/2011				
HLA_B	HLA genomico b.r. B3		4		27/05/2011				
HLA_C	Hla gen. bassa risoluzione locus C1		02		28/05/2012				
HLA_C	Hla gen. bassa risoluzione locus C2		15		28/05/2012				
HLA_DQB	Hla gen.bassa risoluzione DQB1		03		27/05/2011				
HLA_DQB	Hla gen.bassa risoluzione DQB2		05		27/05/2011				
HLA_DR	HLA genomico b.r. DRB 1 1		09		27/05/2011				

➤ NESSUN ALTRO STIMOLO IMMUNOLOGICO

Risultato riconfermato su più campioni

Screening negativo





Filters parameters: Antibody Reactivity is **All** and HLA Typing is **A*32:01** Back

We found 32 epitopes in the database.

**NESSUNO CHE RICONOSCE SOLO
L'ALLELE A*32:01**

?

IP	Very Low	IP	View			A*01:01, A*02:01, A*02:02, A*02:03, A*02:04, A*02:05, A*02:06, A*02:07, A*02:08, A*02:09, A*02:10, A*02:11, A*02:12, A*02:13, A*02:14, A*02:15, A*02:16, A*02:17, A*02:18, A*02:19, A*02:20, A*02:21, A*02:22, A*02:23, A*02:24, A*02:25, A*02:26, A*02:27, A*02:28, A*02:29, A*02:30, A*02:31, A*02:32, A*02:33, A*02:34, A*02:35, A*02:36, A*02:37, A*02:38, A*02:39, A*02:40, A*02:41, A*02:42, A*02:43, A*02:44, A*02:45, A*02:46, A*02:47, A*02:48, A*02:49, A*02:50, A*02:51, A*02:52, A*02:53, A*02:54, A*02:55, A*02:56, A*02:57, A*02:58, A*02:59, A*02:60, A*02:61, A*02:62, A*02:63, A*02:64, A*02:65, A*02:66, A*02:67, A*02:68, A*02:69, A*02:70, A*02:71, A*02:72, A*02:73, A*02:74, A*02:75, A*02:76, A*02:77, A*02:78, A*02:79, A*02:80, A*02:81, A*02:82, A*02:83, A*02:84, A*02:85, A*02:86, A*02:87, A*02:88, A*02:89, A*02:90, A*02:91, A*02:92, A*02:93, A*02:94, A*02:95, A*02:96, A*02:97, A*02:98, A*02:99, A*02:100	A*01:01, A*02:01, A*02:02, A*02:03, A*02:04, A*02:05, A*02:06, A*02:07, A*02:08, A*02:09, A*02:10, A*02:11, A*02:12, A*02:13, A*02:14, A*02:15, A*02:16, A*02:17, A*02:18, A*02:19, A*02:20, A*02:21, A*02:22, A*02:23, A*02:24, A*02:25, A*02:26, A*02:27, A*02:28, A*02:29, A*02:30, A*02:31, A*02:32, A*02:33, A*02:34, A*02:35, A*02:36, A*02:37, A*02:38, A*02:39, A*02:40, A*02:41, A*02:42, A*02:43, A*02:44, A*02:45, A*02:46, A*02:47, A*02:48, A*02:49, A*02:50, A*02:51, A*02:52, A*02:53, A*02:54, A*02:55, A*02:56, A*02:57, A*02:58, A*02:59, A*02:60, A*02:61, A*02:62, A*02:63, A*02:64, A*02:65, A*02:66, A*02:67, A*02:68, A*02:69, A*02:70, A*02:71, A*02:72, A*02:73, A*02:74, A*02:75, A*02:76, A*02:77, A*02:78, A*02:79, A*02:80, A*02:81, A*02:82, A*02:83, A*02:84, A*02:85, A*02:86, A*02:87, A*02:88, A*02:89, A*02:90, A*02:91, A*02:92, A*02:93, A*02:94, A*02:95, A*02:96, A*02:97, A*02:98, A*02:99, A*02:100
44RM	High	44RSM	View			A*01:01, A*02:01, A*02:02, A*02:03, A*02:04, A*02:05, A*02:06, A*02:07, A*02:08, A*02:09, A*02:10, A*02:11, A*02:12, A*02:13, A*02:14, A*02:15, A*02:16, A*02:17, A*02:18, A*02:19, A*02:20, A*02:21, A*02:22, A*02:23, A*02:24, A*02:25, A*02:26, A*02:27, A*02:28, A*02:29, A*02:30, A*02:31, A*02:32, A*02:33, A*02:34, A*02:35, A*02:36, A*02:37, A*02:38, A*02:39, A*02:40, A*02:41, A*02:42, A*02:43, A*02:44, A*02:45, A*02:46, A*02:47, A*02:48, A*02:49, A*02:50, A*02:51, A*02:52, A*02:53, A*02:54, A*02:55, A*02:56, A*02:57, A*02:58, A*02:59, A*02:60, A*02:61, A*02:62, A*02:63, A*02:64, A*02:65, A*02:66, A*02:67, A*02:68, A*02:69, A*02:70, A*02:71, A*02:72, A*02:73, A*02:74, A*02:75, A*02:76, A*02:77, A*02:78, A*02:79, A*02:80, A*02:81, A*02:82, A*02:83, A*02:84, A*02:85, A*02:86, A*02:87, A*02:88, A*02:89, A*02:90, A*02:91, A*02:92, A*02:93, A*02:94, A*02:95, A*02:96, A*02:97, A*02:98, A*02:99, A*02:100	A*01:01, A*02:01, A*02:02, A*02:03, A*02:04, A*02:05, A*02:06, A*02:07, A*02:08, A*02:09, A*02:10, A*02:11, A*02:12, A*02:13, A*02:14, A*02:15, A*02:16, A*02:17, A*02:18, A*02:19, A*02:20, A*02:21, A*02:22, A*02:23, A*02:24, A*02:25, A*02:26, A*02:27, A*02:28, A*02:29, A*02:30, A*02:31, A*02:32, A*02:33, A*02:34, A*02:35, A*02:36, A*02:37, A*02:38, A*02:39, A*02:40, A*02:41, A*02:42, A*02:43, A*02:44, A*02:45, A*02:46, A*02:47, A*02:48, A*02:49, A*02:50, A*02:51, A*02:52, A*02:53, A*02:54, A*02:55, A*02:56, A*02:57, A*02:58, A*02:59, A*02:60, A*02:61, A*02:62, A*02:63, A*02:64, A*02:65, A*02:66, A*02:67, A*02:68, A*02:69, A*02:70, A*02:71, A*02:72, A*02:73, A*02:74, A*02:75, A*02:76, A*02:77, A*02:78, A*02:79, A*02:80, A*02:81, A*02:82, A*02:83, A*02:84, A*02:85, A*02:86, A*02:87, A*02:88, A*02:89, A*02:90, A*02:91, A*02:92, A*02:93, A*02:94, A*02:95, A*02:96, A*02:97, A*02:98, A*02:99, A*02:100