



Fig.1S - M13KO7 non specific binding to the various substrates.

As seen in Fig. 1S, in the absence of blocking the non specific binding of M13KO7 helper phages (carrying no scFv) to GaAs (100) is higher than to GaAs (111A) and GaAs (111B). Blocking is thus essential for the isolation of antibodies (and peptides) against specific crystalline facets.

The phages and the GaAs substrates were interacted for 1 hour and then washed six fold in TBST (TBS with 0.1% TWEEN 20). Phages were eluted from the substrates in Triethylamine (PH 12). The output was titrated to yield dilution series and plated on solid agar. Densities were estimated by counting colonies.

V _H CDR1	A3	L	S	S	Y	D	L	S										
	c7	F	T	V	N	S	N	Y	M	N								
	d11	R	Q	A	P	G	K	G	L	E								
	e11	T	S	D	D	H	A	M	H									
	f10	D	D	Y	A	M	S											
	b7	R	R	Y	G	M	H											
	d3	R	Q	A	P	G	K	G	L	E								
	e1	T	D	Y	Y	M	S											
	f1	S	S	S	A	L	Q											
	EB	D	D	Y	G	M	S											
V _H CDR2	A3	R	I	N	G	D	G	S	S	T	S	Y	A	D	S	V	K	G
	c7	I	E	T	N	G	I	T	S	Y	A	D	S	V	K	G		
	d11	A	I	S	A	G	G	D	A	P	W	Y	A	G	S	A	R	G
	e11	R	I	N	S	D	G	S	S	T	I	Y	A	D	S	A	K	G
	f10	A	I	S	G	S	G	G	T	T	Y	Y	A	D	S	V	K	G
	b7	A	I	T	T	G	G	G	S	P	N	Y	A	D	S	V	K	G
	d3	G	I	S	G	S	G	G	S	T	N	Y	A	D	S	V	K	G
	e1	Y	I	N	P	S	S	R	Y	T	D	Y	A	D	S	V	K	G
	f1	Y	V	S	P	G	S	D	D	T	Y	Y	A	D	S	V	K	G
	EB	G	I	N	W	N	G	G	S	T	G	Y	A	D	S	V	K	G
V _L CDR1	A3	R	A	S	Q	S	V	S	S	N	L	A						
	c7	H	P	S	P													
	d11	R	A	S	Q	T	V	S	S	R	Y	L	A					
	e11	G	S	N	S	N	I	G	S	N	T	V	N					
	f10	S	G	S	T	S	N	I	A	A	N	T	V	H				
	b7	G	S	S	S	N	I	G	S	N	T	V	N					
	d3	R	A	S	Q	S	V	R	S	N	Y	L	A					
	e1	G	S	S	P	N	I	G	S	N	T	V	K					
	f1	G	S	S	S	N	I	G	S	N	T	V	N					
	EB	Q	G	D	S	L	R	S	Y	Y	A	S						
V _L CDR2	A3	D	A	S	I	R	A	T	G	I	P							
	c7	G	A	S	T	R	A	T	G	I	P							
	d11	D	A	S	S	R	A	P	G	I	P							
	e11	G	V	T	N	R	P	S										
	f10	S	N	N	Q	R	P	S										
	b7	R	D	N	Q	R	P	S										
	d3	D	A	S	K	R	A	P	G	I	P							
	e1	D	N	N	Q	R	P	S										
	f1	D	N	Y	K	R	P	S	G	V	P	D						
	EB	G	K	N	N	R	P											

Positively Charge

Negatively Charge

Non polar Aliphatic

Polar Uncharged

Aromatic

Cyclic

fig.2S – The light and heavy chains of CDR1 and 2 for 10 clones. Colors depict the nature of the amino acid according to the legend displayed at the bottom.