

**TABLE S9**

Design Protocol	Elastase Interface Residues															Identical to Native	
	41	57	61	172	175	190	192	193	194	195	213	214	215	216	217	#	%
<b>NATIVE</b>	T	H	R	W	T	G	Q	G	D	S	T	S	F	V	S	15	
<b>MULTI</b>	L	F	+	+	K	+	+	D	P	L	A	Y	Y	T	N	4	27%
SINGLE 1EA1	L	F	V	+	K	+	+	N	P	I	M	K	W	T	W	3	20%
1FLE	L	F	M	Y	W	Y	+	N	V	L	L	Y	+	I	W	2	13%
1MCV	+	F	+	+	W	+	+	H	P	L	K	L	Y	A	P	5	33%