Figure 1

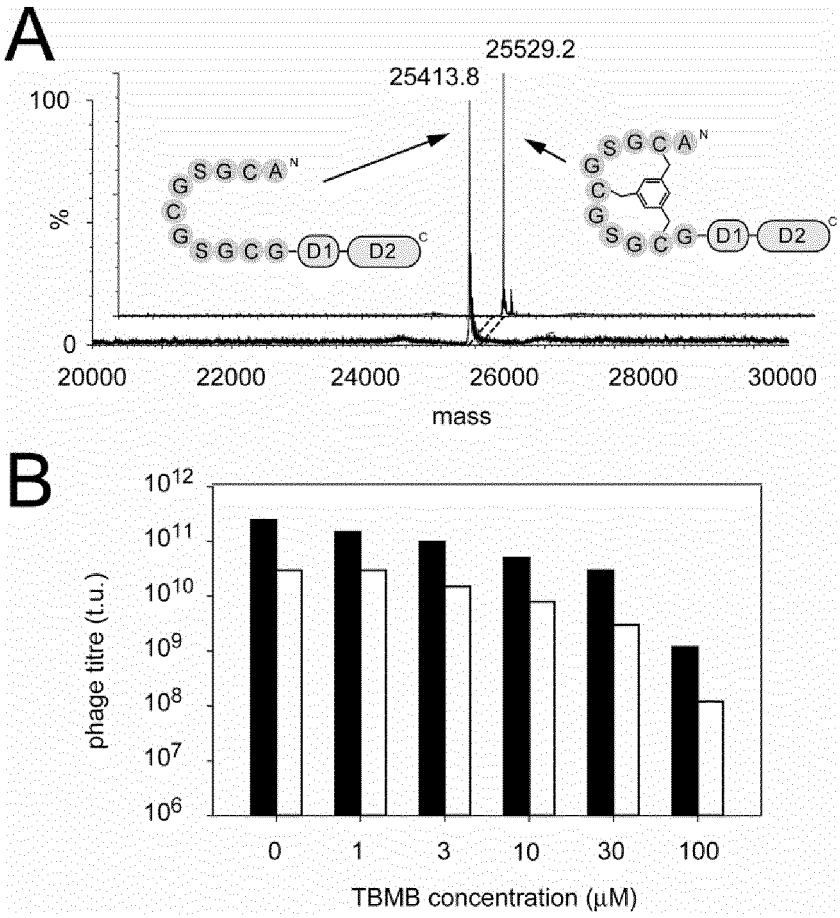

A
25529.2
25413.8
100
%
0
20000
22000
24000
26000
28000
30000
mass
G S G C A N
G C G S G C G D1 D2 C
G S G C A N
G C G S G C G D1 D2 C
B
10^{12}
10^{11}
10^{10}
10^{9}
10^{8}
10^{7}
10^{6}
phage titre (t.u.)
0
1
3
10
30
100
TBMB concentration (μM)

Figure 2

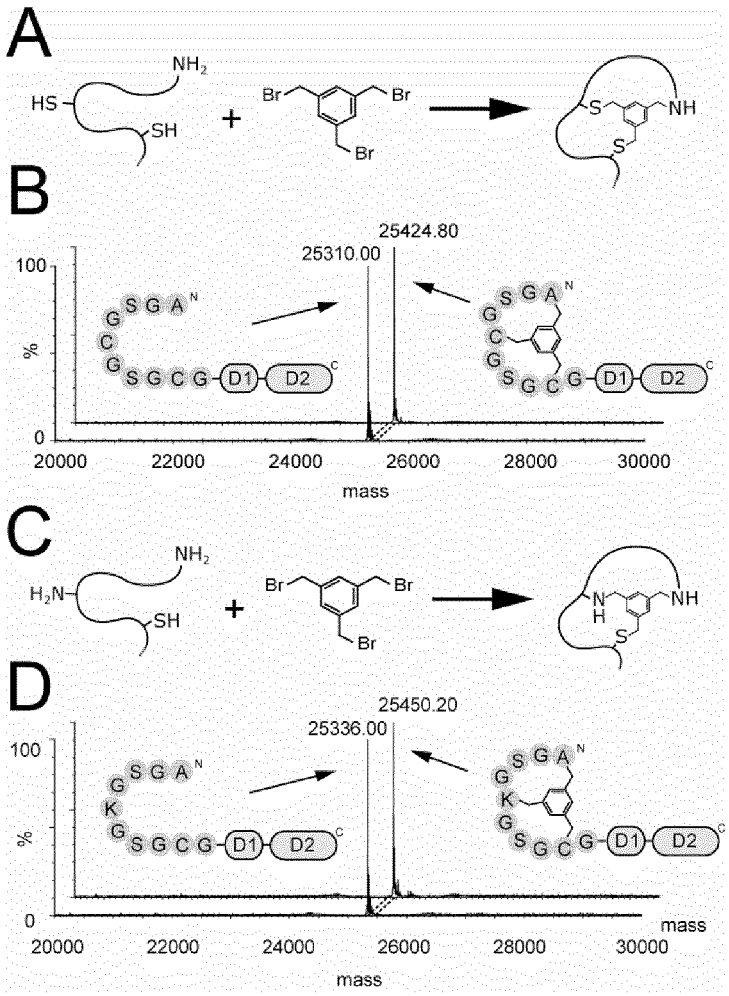

A
NH2
HS
SH
Br
Br
Br
S
NH
S
B
25424.80
25310.00
100
%
0
S G A N
G
C
G
S G C G
D1
D2
C
20000
22000
24000
26000
28000
30000
mass
C
NH2
H2N
SH
Br
Br
Br
N
H
NH
S
D
25450.20
25336.00
100
%
0
S G A N
G
K
G
S G C G
D1
D2
C
mass
20000
22000
24000
26000
28000
30000
mass

Figure 3

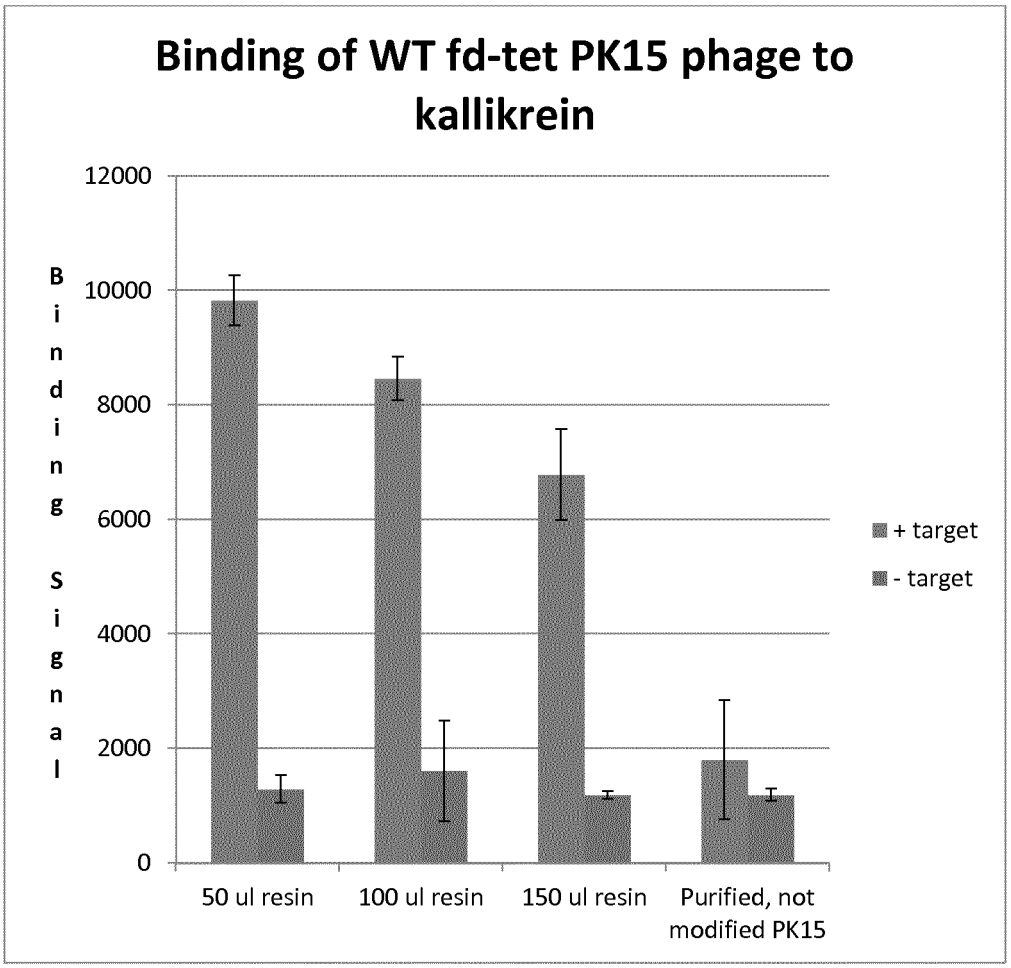
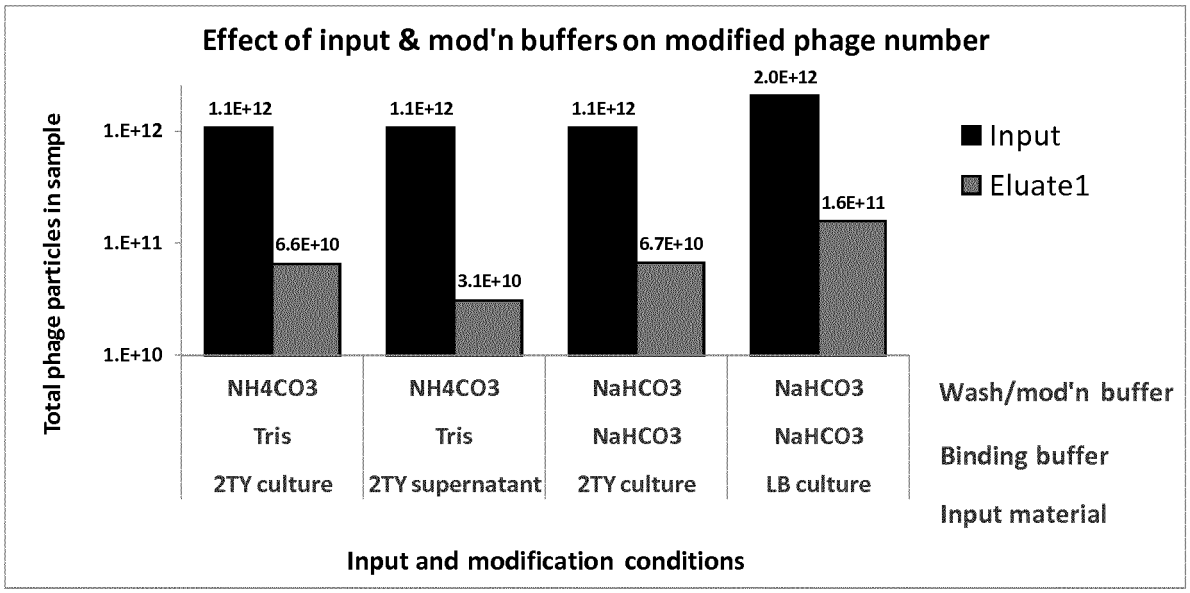

Binding of WT fd-tet PK15 phage to kallikrein
Binding Signal
12000
10000
8000
6000
4000
2000
0
50 ul resin
100 ul resin
150 ul resin
Purified, not modified PK15
+ target
- target

Figure 4

A


Effect of input & mod'n buffers on modified phage number
Total phage particles in sample
1.E+12
1.E+11
1.E+10
1.1E+12
6.6E+10
1.1E+12
3.1E+10
1.1E+12
6.7E+10
2.0E+12
1.6E+11
Input
Eluate1
NH4CO3
Tris
2TY culture
NH4CO3
Tris
2TY supernatant
NaHCO3
NaHCO3
2TY culture
NaHCO3
NaHCO3
LB culture
Wash/mod'n buffer
Binding buffer
Input material
Input and modification conditions

B

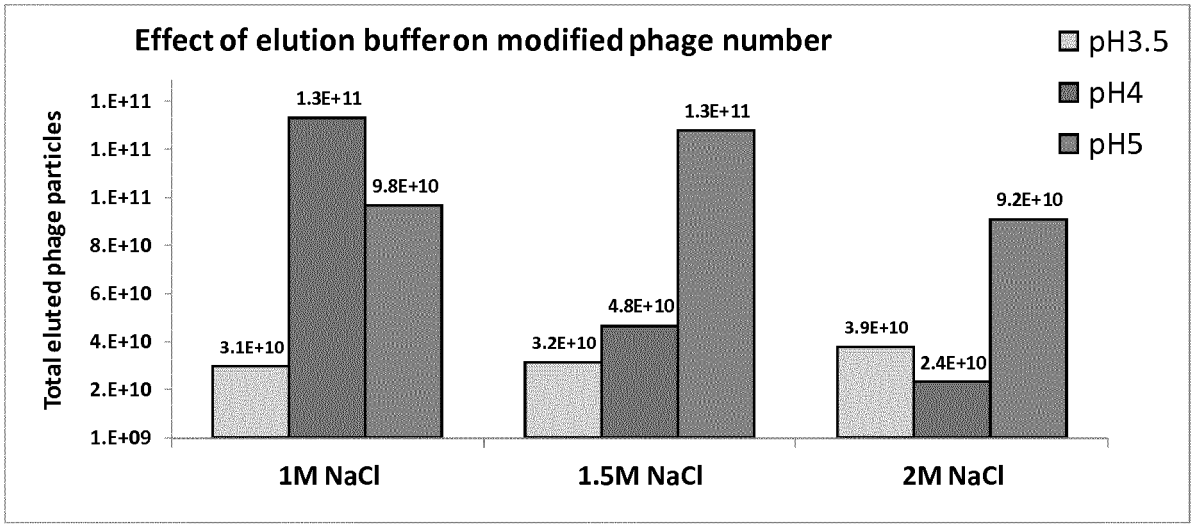

Effect of elution buffer on modified phage number
Total eluted phage particles
1.E+11
1.E+11
1.E+11
8.E+10
6.E+10
4.E+10
2.E+10
1.E+09
3.1E+10
1.3E+11
9.8E+10
3.2E+10
4.8E+10
1.3E+11
3.9E+10
2.4E+10
9.2E+10
pH3.5
pH4
pH5
1M NaCl
1.5M NaCl
2M NaCl

Figure 4 C

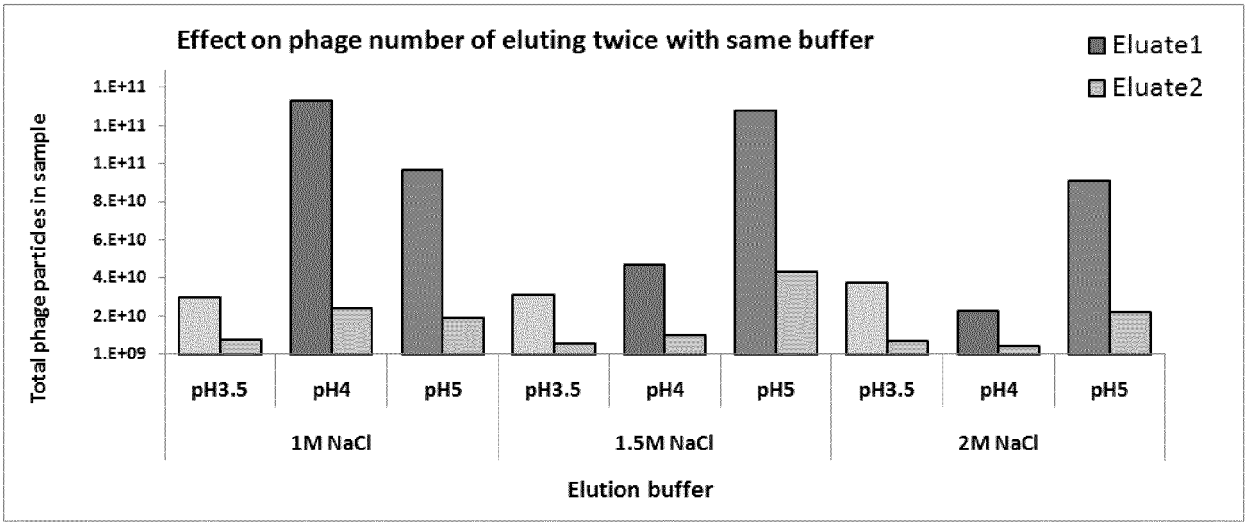

Effect on phage number of eluting twice with same buffer
Eluate1
Eluate2
Total phage particles in sample
1.E+11
1.E+11
1.E+11
8.E+10
6.E+10
4.E+10
2.E+10
1.E+09
pH3.5
pH4
pH5
pH3.5
pH4
pH5
pH3.5
pH4
pH5
1M NaCl
1.5M NaCl
2M NaCl
Elution buffer

Figure 5

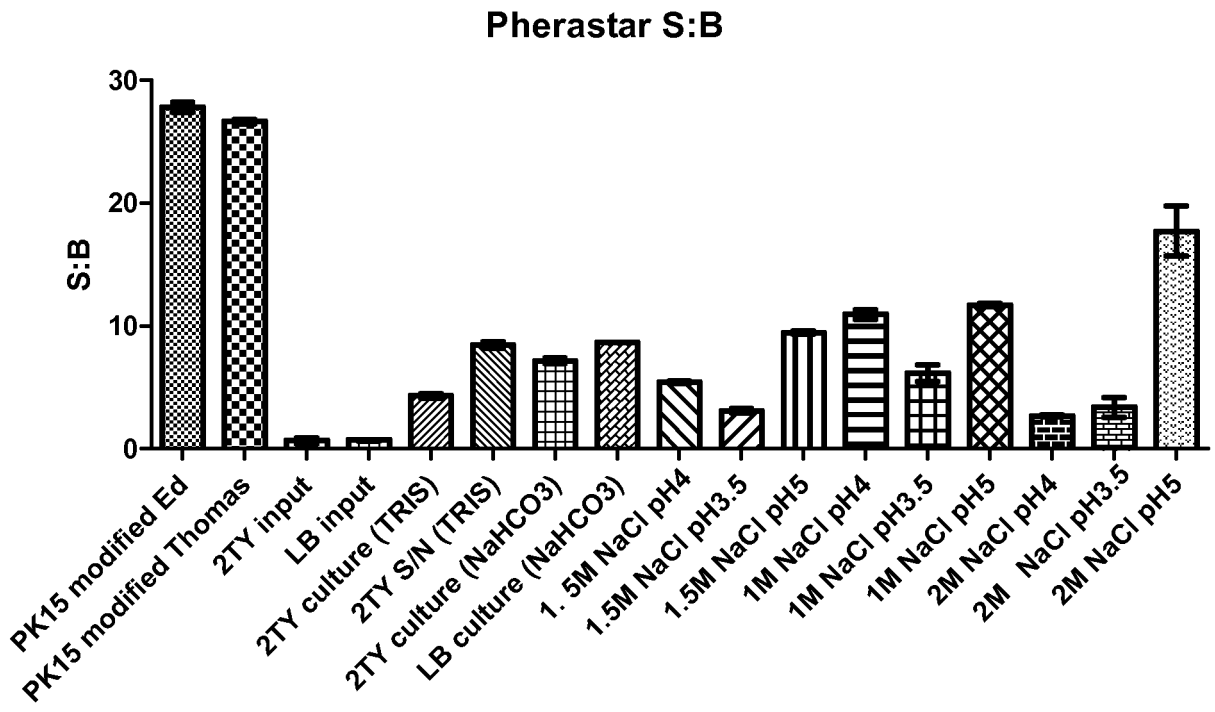
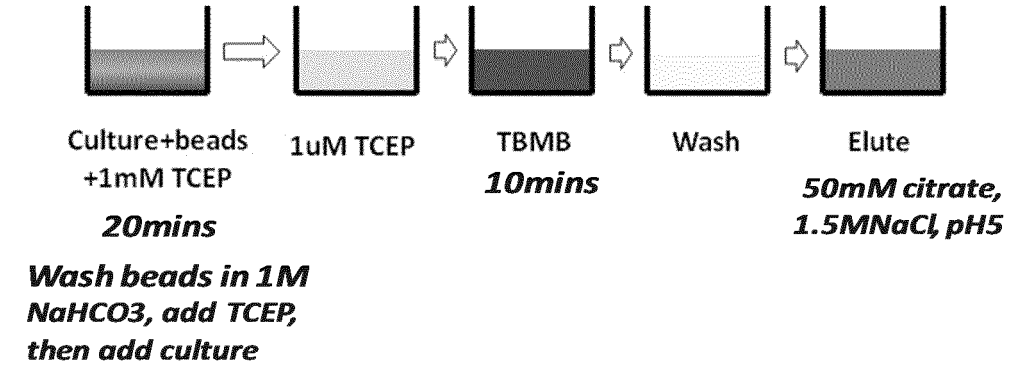

Pherastar S:B
S:B
30
20
10
0
PK15 modified Ed
PK15 modified Thomas
2TY input
LB input
2TY culture (TRIS)
2TY S/N (TRIS)
2TY culture (NaHCO3)
LB culture (NaHCO3)
1. 5M NaCl pH4
1.5M NaCl pH3.5
1.5M NaCl pH5
1M NaCl pH4
1M NaCl pH3.5
1M NaCl pH5
2M NaCl pH4
2M NaCl pH3.5
2M NaCl pH5

Figure 6

A: 'Quick':



B: 'Long':

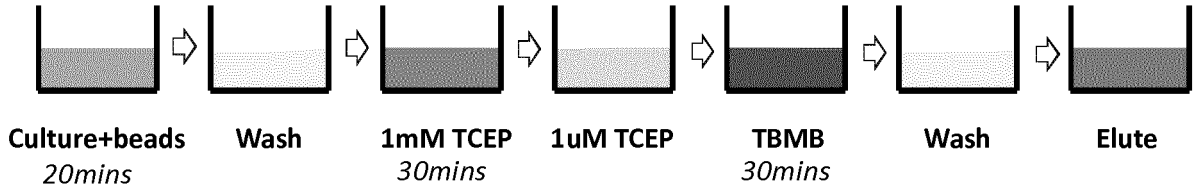
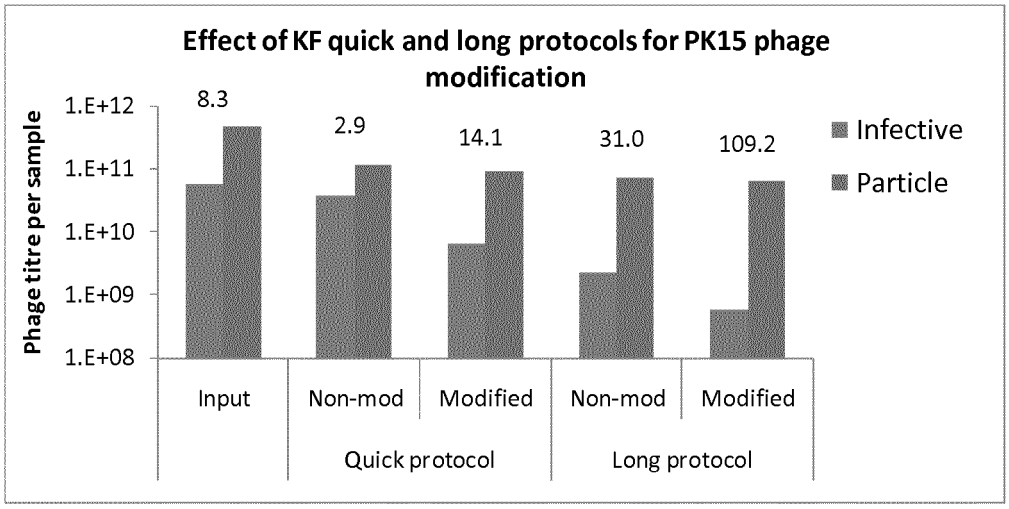


Figure 7 A


Effect of KF quick and long protocols for PK15 phage modification
Phage titre per sample
1.E+12
1.E+11
1.E+10
1.E+09
1.E+08
8.3
2.9
14.1
31.0
109.2
Infective
Particle
Input
Non-mod
Modified
Non-mod
Modified
Quick protocol
Long protocol

B

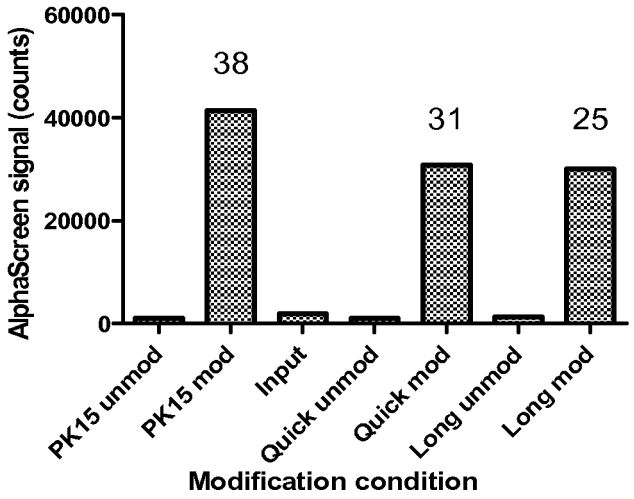

AlphaScreen signal (counts)
60000
40000
20000
0
38
31
25
PK15 unmod
PK15 mod
Input
Quick unmod
Quick mod
Long unmod
Long mod
Modification condition

Figure 8

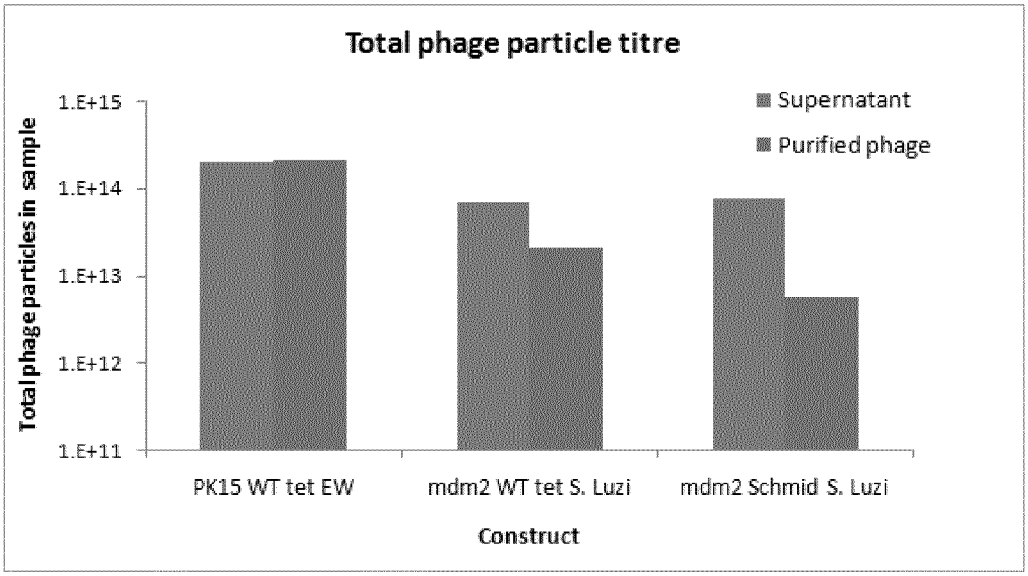

Total phage particle titre
Supernatant
Purified phage
Total phage particles in sample
1.E+15
1.E+14
1.E+13
1.E+12
1.E+11
PK15 WT tet EW
mdm2 WT tet S. Luzi
mdm2 Schmid S. Luzi
Construct

Figure 9A

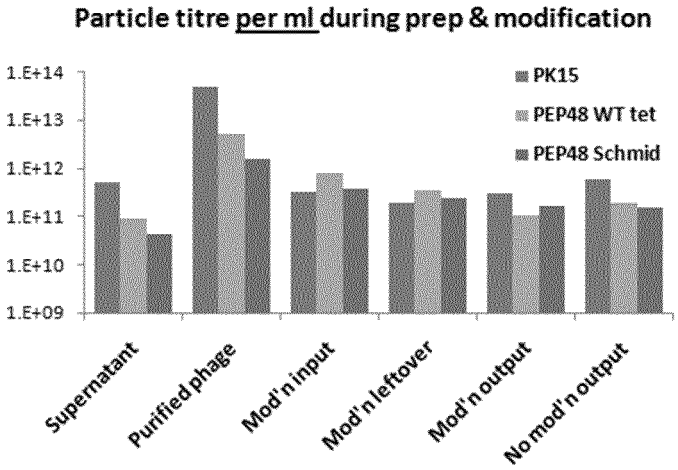


Figure 9B

