Table S3

I: RQWGPDP{A/C/D/F/H/I/K/L/M/N/P/R/S/V/Y} {A/C/G/H/I/K/L/M/N/P/Q/R/S/T/V}A motif

Number	Peptide Sequence	pEC_{50}
1	RQWGPDPNCA	5.484
2	RQWGPDPCCA	5.651
3	RQWGPDPDPA	6.047
4	RQWGPDPSMA	6.319
5	RQWGPDPCIA	6.326
6	RQWGPDPDNA	6.777
Index	ALWGPDPAAA	7.151
7	RQWGPDPRVA	7.236
8	RQWGPDPIHA	7.24
9	RQWGPDPKRA	7.257
10	RQWGPDPRTA	7.473
11	RQWGPDPKIA	7.612
12	RQWGPDPYCA	7.659
13	RQWGPDPFHA	7.791
14	RQWGPDPLKA	7.854
15	RQWGPDPAIA	7.882
16	RQWGPDPYSA	7.884
17	RQWGPDPKCA	7.887
18	RQWGPDPSTA	7.907
19	RQWGPDPYNA	7.912
20	RQWGPDPKTA	7.916
21	RQWGPDPMSA	7.969
22	RQWGPDPMAA	7.979
23	RQWGPDPHHA	8.093
24	RQWGPDPLAA	8.096
25	RQWGPDPHIA	8.36
26	RQWGPDPARA	8.384
27	RQWGPDPALA	8.823
28	RQWGPDPPNA	9.328
29	RQWGPDPPLA	9.335
30	RQWGPDPPVA	9.395

II: RQWGP{D/F}{P/F}xx{A/I/L/V} motif

Number	Peptide Sequence	pEC_{50}
1	RQWGPFPSYV	3.723
2	RQWGPFFMDA	5.401
3	RQWGPFFIRI	5.561
4	RQWGPFPWDL	5.564
5	RQWGPFFRGA	5.658
6	RQWGPDFGEI	5.949
7	RQWGPFFPWV	6.048
8	RQWGPFFRTA	6.102
9	RQWGPFPHFV	6.121
10	RQWGPFFSQL	6.147
11	RQWGPDFEGV	6.306
12	RQWGPDPDDI	6.391
13	RQWGPFFKNV	6.795
14	RQWGPDFWGI	6.949
15	RQWGPFFKSA	7.114
16	RQWGPDFFYV	7.28
17	RQWGPFPAYV	7.404
18	RQWGPFFHTA	7.498
19	RQWGPDPGTI	7.51
20	RQWGPDFSFV	8.05
21	RQWGPDFVNI	8.206
22	RQWGPDFAHV	8.625
Index	ALWGPDPAAA	8.639
23	RQWGPDPESI	8.716
24	RQWGPDPHEI	9.086
25	RQWGPDFFVV	9.253
26	RQWGPDPMAA	9.556
27	RQWGPDPTNV	9.622
28	RQWGPDPHSV	9.774
29	RQWGPDPMQL	9.802
30	RQWGPDFMTV	9.808

III: RQxGPDxxxA motif

Number	Peptide Sequence	pEC_{50}
1	RQVGPDIWVA	Null
2	RQPGPDQINA	2.538
3	RQEGPDYFEA	2.567
4	RQPGPDNNMA	2.891
5	RQAGPDIYQA	2.901
6	RQPGPDQRLA	2.92
7	RQTGPDLDYA	2.926
8	RQEGPDESVA	2.996
9	RQDGPDREDA	3.099
10	RQYGPDVWQA	3.12
11	RQKGPDAEGA	3.479
12	RQIGPDDQLA	3.536
13	RQEGPDMDPA	3.84
14	RQHGPDQDEA	3.894
15	RQPGPDMHSA	4.302
16	RQLGPDSQHA	4.409
17	RQRGPDQMAA	4.502
18	RQSGPDDLLA	4.548
19	RQSGPDRRIA	4.756
20	RQDGPDPTTA	4.771
21	RQDGPDPQRA	4.784
22	RQPGPDNNYA	4.922
23	RQPGPDLNSA	5.076
24	RQSGPDPHRA	5.694
25	RQMGPDWSEA	5.701
26	RQNGPDQMSA	5.924
27	RQMGPDEPRA	5.944
Index	ALWGPDPAAA	6.49
28	RQSGPDHATA	6.932
29	RQMGPDFRLA	7.642
30	RQPGPDFHPA	8.12

IV: xQxGPDxxxV motif

Number	Peptide Sequence	pEC_{50}
1	DQFGPDRDPV	2.731
2	QQDGPDPNLV	2.991
3	VQYGPDSTEV	3.064
4	AQNGPDFEEV	3.109
5	SQLGPDQSEV	3.226
6	YQYGPDEDEV	3.261
7	SQPGPDRMIV	3.29
8	TQDGPDSAHV	3.294
9	GQGGPDNLNV	3.308
10	YQEGPDASPV	3.32
11	IQPGPDILFV	3.342
12	YQKGPDLQYV	3.37
13	PQKGPDMLEV	3.413
14	KQLGPDTEIV	3.417
15	EQWGPDQWNV	3.437
16	DQSGPDRAYV	3.45
17	MQMGPDITLV	3.457
18	AQLGPDVAWV	3.464
19	KQPGPDQAGV	3.477
20	GQGGPDNLSV	3.556
21	LQSGPDVNIV	3.577
22	AQEGPDWDKV	3.949
23	IQTGPDKIAV	3.975
24	QQHGPDSQYV	4.147
25	EQWGPDQKWV	4.166
26	SQEGPDPFGV	4.792
27	FQIGPDFWVV	5.654
28	RQVGPDHTLV	5.999
29	DQIGPDWPRV	6.446
30	AQSGPDWLKV	6.512
Index	ALWGPDPAAA	7.976

Va: Biased sampling set (1st)

Number	Peptide Sequence	pEC_{50}
1	GVYGPFMKGM	5.741
2	MQILPDFFKL	6.293
3	IQLGPDWISA	6.337
4	YVVGPFFKGL	6.487
5	VQQGPFAMNL	6.771
6	KLWGPDFRNA	7.095
7	SVVGPSWKQA	7.323
8	LQFGPFFMNM	7.343
9	KQKLPFFFTA	7.395
10	WLYGPFFMPV	7.523
11	HVQGWFFLTL	7.617
12	WQEGPDWPFT	8.197
13	LTYGPFFKLL	8.416
14	MVNGPDWKTM	8.442
15	RQFGPFWPHL	8.582
16	RSFGVDFPVI	8.586
Index	ALWGPDPAAA	8.593
17	KQIGPFWKGI	8.601
18	KQYGPFFLIA	8.726
19	YQWGPFFLPA	8.78
20	RQWGPDFLRI	8.807
21	GLFGPDEKLI	9.043
22	KTMGPFLMRI	9.12
23	WQWGPFFLKV	9.158
24	WQYWPDFMKA	9.305
25	YQPGPAFPTM	9.461
26	KLQGPDFKSI	9.521
27	LQLGPDFKTA	9.749
28	KQFGPDFPTA	10.346
29	RQFGPDFPKL	10.467
30	YQFGPDFPIA	10.749

Vb: Biased sampling set (2nd)

Number	Peptide Sequence	pEC_{50}
1	IQYGPMFMGA	3.254
2	MQFGPFFGPA	3.265
3	AIFGPFFIKL	4.093
4	WQWGGDWKFL	4.114
5	TQKGPFWIQA	4.279
6	IQFGPFFLPA	4.703
7	YLAGPAFKRA	4.81
8	LQWGPFFTIL	4.91
9	ITWGNDFKVA	4.939
10	FQYGPFLPRT	5.242
11	MQFGPFWPGA	5.346
12	LQEGPDWPKA	5.353
13	LTWGPDWFSA	5.365
14	WQQGPDRMNI	5.44
15	HQFGPDRMTL	5.553
16	HIWGPDWKTI	5.679
17	RVLGPDFVKV	5.931
18	AQYGPFWPTI	6.063
19	IIWGNDFMVL	6.618
20	LVYGPFFKII	6.646
21	RSWLPDFLTI	6.86
22	YLFGPDLMKV	7.186
Index	ALWGPDPAAA	7.381
23	LQVGPDFMKA	7.615
24	MQVGPDFMNI	7.716
25	MVFGPDFKSA	7.895
26	KQWGPDFPLA	8.203
27	RQYGPFFAST	8.564
28	YQYGPDFINA	8.754
29	MQYGPDFPRT	8.892
30	RQFGPDFPTI	10.357