



Fig. S1 Binding analysis of divalent peptides containing 64 candidate motifs to 1BH or 1BH-G62A
 Sixty-four divalent peptides containing the candidate motifs, the first three amino acids of which are shown in the panel, were synthesized on a membrane. After blotting of the membrane with the indicated concentrations of ^{125}I -1BH or ^{125}I -1BH-G62A (Fig. 4A), the radioactivity bound to each peptide spot was quantitated as a pixel value and analyzed.

Table S1 Analysis of the binding of divalent peptides synthesized on a membrane with ^{125}I -1BH or ^{125}I -1BH-G62A

The radioactivity of ^{125}I -1BH or ^{125}I -1BH-G62A bound to each peptide spot (Fig. 3B) was quantitated as a pixel value. The sum of the pixel value of each peptide was normalized to 380 (the number of divalent peptides synthesized on a membrane) so that each peptide would have a value of 1 in the absence of selectivity. The ratio (1BH/G62A ratio) of the normalized value of ^{125}I -1BH binding (1BH-binding value) to that of ^{125}I -1BH-G62A binding (G62A-binding value) was calculated, and the sum of each ratio was also normalized to 380 to evaluate the specificity of binding through G62. The product (1BH \times ratio) of the 1BH-binding value and the normalized 1BH/G62A ratio was used to evaluate both the binding intensity and specificity. Divalent peptides with 1BH-binding values greater than 1.14 were selected (110 peptides) and then re-sorted in descending order of 1BH \times ratio. The gray boxes indicate the 64 candidate motifs that were selected after the binding analysis.

order	XXX	1BH-binding value	G62A-binding value	1BH/G62A ratio	1BH × ratio
1	KLA	3.68	2.07	1.77	6.52
2	PRA	2.19	0.85	2.58	5.65
3	AAN	1.41	0.44	3.21	4.54
4	KKA	5.48	6.84	0.80	4.39
5	GPA	1.18	0.33	3.62	4.29
6	KIA	2.26	1.35	1.68	3.79
7	VWA	1.65	0.75	2.21	3.65
8	AAK	2.16	1.29	1.67	3.61
9	VTA	1.41	0.57	2.47	3.48
10	AAH	1.55	0.80	1.94	3.00
11	LIA	1.45	0.73	1.98	2.86
12	AAM	1.29	0.60	2.13	2.74
13	KGA	1.83	1.25	1.46	2.67
14	WFA	1.82	1.25	1.46	2.64
15	MKA	1.69	1.09	1.55	2.62
16	FKA	2.38	2.21	1.08	2.56
17	KFA	2.24	2.00	1.12	2.50
18	AAR	1.34	0.73	1.84	2.46
19	FVA	1.39	0.81	1.72	2.39
20	AAF	1.33	0.75	1.77	2.35
21	AAG	1.22	0.66	1.86	2.27
22	FRA	1.81	1.45	1.25	2.26
23	PNA	1.40	0.87	1.61	2.25
24	TRA	1.85	1.53	1.21	2.25
25	FSA	1.32	0.78	1.69	2.23
26	FYA	1.63	1.21	1.34	2.19
27	KRR	1.63	1.23	1.32	2.15
28	KMA	2.29	2.47	0.93	2.13
29	LYA	1.86	1.63	1.14	2.12
30	MSA	1.23	0.73	1.69	2.09
31	MFA	1.20	0.70	1.73	2.08
32	WVA	1.42	0.99	1.44	2.05
33	WMA	1.61	1.26	1.27	2.05
34	GKA	2.30	2.64	0.87	2.00
35	MYA	1.22	0.76	1.62	1.98
36	MMA	1.17	0.70	1.67	1.97
37	IKA	1.65	1.40	1.18	1.95
38	FNA	1.36	0.94	1.44	1.95
39	FWA	1.53	1.20	1.27	1.94
40	PAA	1.18	0.73	1.61	1.91
41	IIA	1.21	0.77	1.58	1.90
42	YWA	1.67	1.47	1.14	1.90
43	RRA	1.41	1.05	1.34	1.89
44	VVA	1.15	0.73	1.58	1.82
45	FTA	1.33	0.99	1.35	1.79
46	SIA	1.43	1.18	1.22	1.74
47	GFA	1.41	1.16	1.22	1.73
48	YTA	1.26	0.93	1.35	1.70
49	VAA	1.19	0.83	1.43	1.69
50	PQA	1.14	0.77	1.49	1.69
51	NKA	1.40	1.16	1.21	1.68
52	QRA	1.52	1.37	1.11	1.68
53	AAL	1.28	0.99	1.30	1.67
54	LRA	1.48	1.31	1.13	1.66

55	VHA	1.15	0.80	1.44	1.65
56	KHA	1.38	1.15	1.19	1.64
57	GYA	1.25	0.97	1.30	1.62
58	VIA	1.16	0.83	1.40	1.62
59	YVA	1.17	0.86	1.37	1.60
60	ISA	1.25	0.99	1.27	1.60
61	PGA	1.17	0.88	1.34	1.57
62	GWA	1.32	1.12	1.18	1.56
63	FLA	1.38	1.26	1.10	1.52
64	HYA	1.28	1.08	1.18	1.51
65	YYA	1.28	1.11	1.15	1.48
66	HRA	1.30	1.16	1.12	1.46
67	NWA	1.24	1.08	1.15	1.42
68	KSA	1.66	1.96	0.85	1.40
69	VFA	1.16	0.98	1.18	1.38
70	WQA	1.24	1.12	1.11	1.37
71	WKA	1.69	2.11	0.80	1.35
72	IQA	1.21	1.10	1.10	1.34
73	HWA	1.25	1.17	1.07	1.33
74	WSA	1.28	1.23	1.04	1.33
75	FIA	1.19	1.08	1.10	1.31
76	AKA	1.33	1.42	0.94	1.25
77	IYA	1.21	1.19	1.02	1.24
78	QKA	1.26	1.31	0.97	1.22
79	PHA	1.23	1.25	0.99	1.21
80	MQA	1.14	1.08	1.05	1.20
81	GMA	1.13	1.08	1.05	1.19
82	SRA	1.21	1.24	0.97	1.18
83	VRA	1.21	1.24	0.97	1.18
84	QWA	1.46	1.84	0.79	1.15
85	YKA	1.58	2.18	0.73	1.15
86	SHA	1.18	1.22	0.97	1.14
87	LKA	1.55	2.17	0.71	1.11
88	WYA	1.34	1.66	0.81	1.08
89	FFA	1.28	1.60	0.80	1.02
90	WTA	1.16	1.32	0.88	1.01
91	WWA	1.37	1.89	0.73	1.00
92	IFA	1.49	2.22	0.67	0.99
93	AAI	1.28	1.66	0.77	0.98
94	KYA	1.51	2.38	0.63	0.96
95	WGA	1.15	1.39	0.83	0.95
96	RFA	1.18	1.50	0.79	0.93
97	YRA	1.21	1.57	0.77	0.93
98	MRA	1.14	1.43	0.80	0.91
99	KA	1.34	2.01	0.67	0.89
100	KTA	1.53	2.67	0.57	0.87
101	FGA	1.18	1.66	0.71	0.84
102	KRA	1.60	3.20	0.50	0.80
103	RKA	1.56	3.09	0.51	0.79
104	KVA	1.47	2.77	0.53	0.78
105	KNA	1.20	1.85	0.65	0.78
106	KPA	1.29	2.18	0.59	0.76
107	PKA	1.34	2.50	0.54	0.72
108	KWA	1.42	3.04	0.47	0.66
109	KQA	1.20	2.37	0.50	0.60
110	SKA	1.32	2.99	0.44	0.58