

Supplementary material:

Table 1: WRKY transcription factor family (BrWRKY & BnWRKY) genes showing interaction with BjMPK3P

S.NO	WRKY (<i>Brassica rapa</i>)	Phosphorylated (Global Energies)
1.	Wrky 1	-51.51
2.	Wrky 2	-
3.	Wrky 3	-
4.	Wrky4	-
5.	Wrky5	-12.17
6.	Wrky6	-
7.	Wrky7	-23.52
8.	Wrky8	-53.29
9.	Wrky9	-73.56
10.	Wrky10	-13.40
11.	Wrky11	-31.78
12.	Wrky12	-13.37
13.	Wrky13	-
14.	Wrky14	-
15.	Wrky15	-22.73
16.	Wrky16	-23.31
17.	Wrky17	-46.57
18.	Wrky18	-55.50
19.	Wrky19	-54.64
20.	Wrky20	-23.81
21.	Wrky21	-32.56
22.	Wrky22	-43.47
23.	Wrky23	-30.74
24.	Wrky24	-
25.	Wrky25	-53.69
26.	Wrky26	-30.79
27.	Wrky27	-34.54
28.	Wrky28	-21.98
29.	Wrky29	-40.65
30.	Wrky30	-28.23
31.	Wrky31	-15.80
32.	Wrky32	-43.31
33.	Wrky33	-
34.	Wrky34	-22.53
35.	Wrky35	-17.07
36.	Wrky36	-
37.	Wrky37	-23.99
38.	Wrky38	-15.71
39.	Wrky39	-29.96
40.	Wrky40	-23.05
41.	Wrky41	-14.89
42.	Wrky42	-13.97
43.	Wrky43	-46.67
44.	Wrky44	-41.74
45.	Wrky45	-46.21
46.	Wrky46	-44.16
47.	Wrky47	-24.72
48.	Wrky48	-11.35
49.	Wrky49	-33.84
50.	Wrky50	-62.36
51.	Wrky51	-35.57
52.	Wrky52	-36.61
53.	Wrky53	-40.26
54.	Wrky54	-32.76
55.	Wrky55	-7.49
56.	Wrky56	-13.62
57.	Wrky57	-25.99
58.	Wrky58	-35.86
59.	Wrky59	-21.73
60.	Wrky60	-36.42
61.	Wrky61	-38.19
62.	Wrky62	-30.26
63.	Wrky63	-27.56

64.	Wrky64	-31.99
65.	Wrky65	-1.10
66.	Wrky66	-50.85
67.	Wrky67	-55.00
68.	Wrky68	-38.03
69.	Wrky69	-25.81
70.	Wrky70	-25.52
71.	Wrky71	-39.36
72.	Wrky72	-16.52
73.	Wrky73	-
74.	Wrky74	-
75.	Wrky75	-

*(-) Sequence not available in BRAD. Some are annotated but does not possess the WRKY domain.

Table 2: List of potential interacting WRKY transcription factors identified through both minimal sequence motif search and docking approach.

MPK3P (*Brassica juncea*)

S.NO	WRKY (<i>Brassica napus</i>)	Phosphorylated (Global Energies)
1.	Wrky 1	-
2.	Wrky 2	-3.18
3.	Wrky 3	-17.78
4.	Wrky4	-28.41
5.	Wrky5	-
6.	Wrky6	-39.72
7.	Wrky7	-39.43
8.	Wrky8	-36.40
9.	Wrky9	-
10.	Wrky10	-
11.	Wrky11	-39.41
12.	Wrky12	-
13.	Wrky13	-
14.	Wrky14	-
15.	Wrky15	-36.06
16.	Wrky16	-
17.	Wrky17	-45.63
18.	Wrky18	-32.92
19.	Wrky19	-
20.	Wrky20	-31.09
21.	Wrky21	-21.87
22.	Wrky22	-25.34
23.	Wrky23	-
24.	Wrky24	-14.15
25.	Wrky25	-10.21
26.	Wrky26	-20.94
27.	Wrky27	-45.22
28.	Wrky28	-29.34
29.	Wrky29	-31.82
30.	Wrky30	-
31.	Wrky31	-
32.	Wrky32	-29.08
33.	Wrky33	-31.79
34.	Wrky34	-
35.	Wrky35	-26.81
36.	Wrky36	-6.85
37.	Wrky37	-
38.	Wrky38	-
39.	Wrky39	-16.79
40.	Wrky40	-39.69
41.	Wrky41	-
42.	Wrky42	6.69
43.	Wrky43	-
44.	Wrky44	-38.39
45.	Wrky45	-50.87
46.	Wrky46	-28.45
47.	Wrky47	-
48.	Wrky48	-
49.	Wrky49	-
50.	Wrky50	-24.41
51.	Wrky51	-

52.	Wrky52	-
53.	Wrky53	-32.93
54.	Wrky54	-
55.	Wrky55	-
56.	Wrky56	-
57.	Wrky57	-
58.	Wrky58	-
59.	Wrky59	-
60.	Wrky60	-
61.	Wrky61	-
62.	Wrky62	-
63.	Wrky63	-
64.	Wrky64	-
65.	Wrky65	-14.43
66.	Wrky66	-
67.	Wrky67	-
68.	Wrky68	-
69.	Wrky69	-20.53
70.	Wrky70	-22.37
71.	Wrky71	-
72.	Wrky72	-27.33
73.	Wrky73	-
74.	Wrky74	-33.78
75.	Wrky75	-24.64

*(-) Sequence not available in Brassica genome gateway