

**Table S1** The information of the 30 conserved genes and their annotations in *Arabidopsis thaliana* genome, where for those having no gene annotation in *A. thaliana* genome, the start and end positions in *A. thaliana* genome were given.

Primer	Chromosome of <i>Brassica napus</i>	Type	Gene in <i>A. thaliana</i>	Chromosome of <i>A. thaliana</i>	Subject Start	Subject End
HiNK22853	A01	COS	AT4G14342	Chr4	8253550	8255508
HiNK22859	A02	STS	AT5G17920	Chr5	5835038	5939487
HiNK22857	A02	Random	AT1G75810	Chr1	28461664	28462366
HiNK22860	A02	COS	AT5G22360	Chr5	7404004	7405765
HiNK22861	A03	STS	AT4G00585	Chr4	250955	252598
HiNK22865	A04	STS	AT2G27290	Chr2	11678400	11679797
HiNK22866	A04	STS	AT3G63140	Chr3	23326867	23328709
HiNK22869	A05	Random	-	Chr5	10362900	10362807
HiNK22872	A06	STS	AT3G04920	Chr3	1360882	1362295
HiNK22874	A06	STS	AT3G49100	Chr3	18196839	18198457
HiNK22877	A07	STS	AT4G24780	Chr4	12770331	12772479
HiNK22875	A07	Random	AT2G02680	Chr2	745775	748573
HiNK22882	A08	COS	AT1G42970	Chr1	16127381	16129843
HiNK22883	A09	COS	AT1G30630	Chr1	10858298	10860261
HiNK22888	A10	Random	AT1G02260	Chr1	440441	442877
HiNK22786	C00	STS	AT3G59530	Chr3	21993253	21995308
HiNK22787	C01	Random	-	Chr4	17735254	17735412
HiNK22788	C01	Random	AT3G17465	Chr3	5977817	5979652
HiNK22793	C02	STS	AT5G46030	Chr5	18670117	18671373
HiNK22797	C03	STS	AT3G44680	Chr3	16226556	16229954
HiNK22799	C04	COS	AT2G27450	Chr2	11737432	11739690
HiNK22800	C04	Random	-	Chr1	16105441	16105495
HiNK22804	C05	STS	AT1G70580	Chr1	26612632	26616069
HiNK22803	C05	COS	AT3G06610	Chr3	2060737	2062067
HiNK22805	C06	Random	-	Chr3	14864155	14863837
HiNK22806	C06	Random	-	Chr1	26213761	26213585
HiNK22807	C06	Random	-	Chr2	4631826	4630468
HiNK22814	C08	Random	AT1G17890	Chr1	6154268	6155752
HiNK22816	C09	Random	-	Chr5	15962649	15962562
HiNK22817	C09	Random	AT5G20840	Chr5	7061103	7069219