

SUPPLEMENTARY MATERIAL

Supplementary Table 1: Accessions and sequences

Species	Family	GenBank Accession No. (<i>AGAMOUS</i> intron/ <i>coding</i>)	GenBank Accession No. (<i>ITS</i>)	Provenance	Botanical Catalog (Year)
<i>Aethionema arabicum</i> (L.) Andr. ex Schultz	Brassicaceae	Not sequenced	AY254539	Conservatoire et Jardins Botaniques de Nancy	267
<i>Alyssum saxatile</i> L.	Brassicaceae	AY253249	AF401115	NK Lawn & Garden Co	
<i>Antirrhinum majus</i> L.	Veronicaceae	AJ239057 (<i>FAR</i>)	NA	NA	
<i>Antirrhinum majus</i> L.	Veronicaceae	Des Bradley, pers. comm. (<i>PLE</i>)/ S53900	NA	NA	
<i>Arabidopsis (Cardaminopsis) arenosa</i> (L.) Hayek	Brassicaceae	AY253237	U52188	Univ. Kiel Botanical Garden	317
<i>Arabidopsis lyrata</i> (L.) O'Kane et Al-Shehbaz	Brassicaceae	AY253251	AJ232889	NA	
<i>Arabidopsis thaliana</i> (L.) Heynh. cv. Columbia	Brassicaceae	AL161549/ X53519	AJ232900	NA	
<i>Arabis gunnisoniana</i> Rollins	Brassicaceae	AY253244	AY254540	Tom Mitchell-Olds, Jena, Germany	
<i>Arabis pumila</i> Jacq.	Brassicaceae	AY253243	AY254546	ABRC, Ohio	CS3701
<i>Barbarea vulgaris</i> R. Br.	Brassicaceae	Not sequenced	AJ232915	NA	
<i>Barbarea vulgaris</i> R. Br.	Brassicaceae	AY253235	Not sequenced	Univ. Kiel Botanical Garden	311
<i>Berteroa incana</i> (L.) DC.	Brassicaceae	AY253236	AY254544	Univ. Kiel Botanical Garden	312
<i>Brassica oleracea</i> L. var. <i>botrytis</i>	Brassicaceae	Not sequenced	AF128099	NA	
<i>Brassica oleracea</i> L. var. <i>oleracea</i> cv. A12	Brassicaceae	AY253241/ M99415	Not sequenced	Graham King, Horticultural Research Int'l, UK	
<i>Cakile maritima</i> Scop.	Brassicaceae	AY253256	AY254541	Jardin Botanique de Bordeaux	204
<i>Camelina microcarpa</i> Andr. ex DC.	Brassicaceae	Not sequenced	AF137574	NA	
<i>Camelina sativa</i> (L.) Crantz	Brassicaceae	AY253253/ AY277683	Not sequenced	Univ. Kiel Botanical Garden	316
<i>Capsella bursa-pastoris</i> (L.) Medikus	Brassicaceae	AY253262/ AY277680, AY277681, AY277682	Not sequenced	SASSC, Sendai, Japan	J025
<i>Capsella bursa-pastoris</i> (L.) Medikus	Brassicaceae	Not sequenced	AF055196	NA	
<i>Capsella rubella</i> Reut.	Brassicaceae	AY253263/ AY277679	AY254537	Marcus Koch, Vienna, Austria	
<i>Cardamine corymbosa</i> F.	Brassicaceae	Not sequenced	AF100678	NA	
<i>Caulanthus inflatus</i> S. Wats.	Brassicaceae	Not sequenced	AF346653	NA	
<i>Cheiranthus cheiri</i> L.	Brassicaceae	AY253258	AY254538	Botanical Interests Inc.*	
<i>Cleome spinosa</i> Jacq.	Brassicaceae (Capparaceae)	Not sequenced	AY254535	Madison WI, near Student Union	
<i>Conringia orientalis</i> (L.) Dumort	Brassicaceae	AY253252	AY254545	Univ. Kiel Botanical Garden	319

<i>Coronopus squamatus</i> (Forsk.) Ashers.	Brassicaceae	AY253246/ AY277684, AY277685	AY254533	Univ. Kiel Botanical Garden	320
<i>Cucumis sativus</i> L.	Cucurbitaceae	AY254704 (<i>CUM1</i>)/ AF035438	NA	Botanical Interests Inc.*	
<i>Cucumis sativus</i> L.	Cucurbitaceae	AY254702 (<i>CAG1</i>)	NA	Botanical Interests Inc.*	
<i>Cucumis sativus</i> L.	Cucurbitaceae	AY254703 (<i>CAG2</i>)	NA	Botanical Interests Inc.*	
<i>Cusickiella douglasii</i> (A. Gray) Rollins	Brassicaceae	Not sequenced	AF146515	NA	
<i>Diplotaxis catholica</i> (L.) DC.	Brassicaceae	AY253257	Not sequenced	Jardin Botanique de Bordeaux	210
<i>Diplotaxis erucoides</i> (L.) DC.	Brassicaceae	Not sequenced	AF263401	NA	
<i>Dithyrea californica</i> Harvey	Brassicaceae	Not sequenced	AF137592	NA	
<i>Draba corrugata</i> S. Wats. var. <i>corrugata</i>	Brassicaceae	AY253247	AY254543	Rancho Santa Ana Bot. Garden at Claremont	19377 (1996)
<i>Draba rigida</i> Willd.	Brassicaceae	Not sequenced	AF401116	NA	
<i>Eruca sativa</i> Mill.	Brassicaceae	AY253240/ AY277688, AY277687, AY277692	AY254536	Botanical Interests Inc. *	
<i>Erysimum capitatum</i> (Douglas ex. Hook.) E. L. Greene	Brassicaceae	AY253248	AY254534	Rancho Santa Ana Botanical Garden, Claremont	18205 (1993)
<i>Guillenia flavescens</i> (Hook.) E. Greene	Brassicaceae	AY253260/ AY277689, AY277693, AY277694	AY254527	Rancho Santa Ana Botanical Garden, Claremont	19164 (1996)
<i>Halimolobos jaegeri</i> (Munz) Rollins	Brassicaceae	Not sequenced	AF055201	NA	
<i>Isatis indigotica</i> Fort.	Brassicaceae	Not sequenced	AF384105	NA	
<i>Lepidium africanum</i> (Burm. f.) DC.	Brassicaceae	AY253238	AY254529	John Bowman, UC Davis	
<i>Lepidium campestre</i> (L.) R. Br.	Brassicaceae	Not sequenced	AF055197	NA	
<i>Lepidium flexicaule</i> Kirk	Brassicaceae	Not sequenced	AF100685	NA	
<i>Lepidium phlebopetalum</i> (F. Muell.) F. Muell.	Brassicaceae	AY253239/ AY277686	AY254528	John Bowman, UC Davis	
<i>Lobularia maritima</i> (L.) Desv.	Brassicaceae	AY253242	AY254530	Botanical Interests Inc.*	
<i>Lycopersicon esculentum</i> L. cv. Microtom	Solanaceae	AY254705 (<i>TAG1</i>)	NA	Juan Carbonell, Valencia, Spain	
<i>Lyrocarpa coulteri</i> Hook. & Harvey	Brassicaceae	Not sequenced	AF137591	NA	
<i>Nasturtium officinale</i> R. Br.	Brassicaceae	AY253250	AY254531	Botanical Interests Inc.*	
<i>Oryza sativa</i> L. cv. <i>japonica</i>	Poaceae	AP003105 (<i>OsMADS3</i>)	N/A		
<i>Physaria acutifolia</i> Rydb.	Brassicaceae	Not sequenced	AF137582	NA	
<i>Petunia x hybrida</i>	Solanaceae	AB076051 (<i>PMADS3</i>)	NA	NA	
<i>Picea abies</i>	Pinaceae	X79280 (<i>DAL2</i>)	NA	NA	
<i>Picea mariana</i>	Pinaceae	U69482 (<i>SAG1a</i>)	NA	NA	
<i>Populus balsamifera</i> L. subsp. <i>trichocarpa</i> (Torr. & A. Gray) Brayshaw	Salicaceae	AF052570 (<i>PTAG1</i>)	NA	NA	
<i>Populus balsamifera</i> L. subsp. <i>trichocarpa</i> (Torr. & A. Gray) Brayshaw	Salicaceae	AF052571 (<i>PTAG2</i>)	NA	NA	
<i>Raphanus sativus</i> L. cv. Mei-Nong	Brassicaceae	Not sequenced	AF128105	NA	
<i>Raphanus sativus</i> L. cv. Cherry Bell	Brassicaceae	AY253245	Not sequenced	Botanical Interests Inc.*	
<i>Rorippa indica</i> (L.) Hiern	Brassicaceae	Not sequenced	AF128108	NA	

<i>Sinapis alba</i> L.	Brassicaceae	Not sequenced	AF128106	NA	
<i>Smelowskia calycina</i> (Stephne) C. A. Meyer	Brassicaceae	Not sequenced	AF137581	NA	
<i>Streptanthus glandulosus</i> subsp. <i>pulchellus</i> Hook.	Brassicaceae	Not sequenced	AF346652	NA	
<i>Streptanthus insignis</i> Jepson	Brassicaceae	AY253259	Not sequenced	Rancho Santa Ana Botanical Garden, Claremont	18924 (1995)
<i>Thlaspi arvense</i> L.	Brassicaceae	AY253254/ AY277690, AY277691	AY254532	Univ. Kiel Botanical Garden	346
<i>Thysanocarpus</i> sp. Hook	Brassicaceae	AY253255	AY254542	Rancho Santa Ana Botanical Garden, Claremont	18923 (1995)
<i>Zea mays</i> L.	Poaceae	X81199 (<i>ZMM1</i>)	NA	NA	
<i>Zea mays</i> L.	Poaceae	L18924 (<i>ZAG1</i>)	NA	NA	
<i>Zea mays</i> L.	Poaceae	X81200 (<i>ZMM2</i>)	NA	NA	
<i>Zea mays</i> L.	Poaceae	X80206 (<i>ZAG2</i>)	NA	NA	

*Commercial source

NA = Not applicable

Supplementary Table 2: Oligonucleotide primers

oMX1133	ACGTTCCATACTTT <u>A</u> ATTATTTGGAATATA
oMX1134	TATATTCCAAATAAT <u>T</u> AAAGTATGGAACGT
oKB1009	GGGTAACGCCAGGGTTTTCCAGTCACG
oN-167	AGACTGAATGCCACAGGCCGTCGAG
oN-471	CCGTAGGTGAACCTCGGAGGG
oN-472	GGTGATCCCGCCTGACCTGG
oN-583	TCCATCCT <u>A</u> AATTGTTGTTAATGTC
oN-584	GACATTAACAACAAT <u>T</u> IAGGATGGA
oN-601	GAACCGATGTTT <u>A</u> ATTTAAGGTTTCGTAT
oN-602	ATACGAAACCTTAAAAT <u>T</u> AAACATCGGTTC
oN-654	GTAATATGAACAT <u>T</u> TGTATTGACCAAATGAG
oN-655	CTCATTGGTCAATAC <u>A</u> AAATGTTTCATATTAC
oN-1854	GCAAGATTAGGTTTTTGTGTCTG
oRH1028	ATTCCTCTCCCTTGAGGAAATCTG
oRH1029	ACTAACTGGAGAGCGGTTTGGTC
oRH1034	GTTCTTTGTGATGCTGAAGTCGCAC
oRH1035	TATCCGATATTGCTTTCTTGTACCTC
oRH1038	GCTCTCATTGTCTTCTCCAGCCGTGGC
oRH1039	GCTATCAGAACAAGCCTTCTTGTACCTC
oRH1040	TTGCTTTGGTTGTCTTCTCAAACAGAGG
oRH1041	ATCTGAGCATGCTTTCTTGTACCTCTCG
oRH1044	TGCTGAAGTTGCTCTCATTGTCTTCTCC
oRH1045	AGTTCAGTGACAGAGCTAGTAGCTGAGC
oRH1046	TGAATTGTCTGTGCTCTGTGATGCTGAGG
oRH1047	GCCTCGGATACTGAACCAAGTGGTTGAGG
oRH1050	CAAGAAAGCTTACGAACTCTCTGTTCTTTG
oRH1051	TTAATTTCTGCCACGGATCCGGTGTTAG
oRH1056	AGGTTGCTCTTATCGTCTTCTC
oRH1057	GCCTTTTTGTACCTCGAAATCG
oRH1058	CTTAAGAAAGCTTATGAACTCTCTGTCC
oRH1059	TGAAACGGTCATGGCGGTGGAGGGATCCG
oRH1082	CCTAGACATGTTTCAGATGTCACTCTAATTTTGC
oRH1083	GCAAAATTAGAGTGACATCTGAACATGTCTAGG
oRH1084	CCTTAAATTTATCGAGCTAGCTGCCAACTGCCATGC
oRH1085	GCATGGCAGTTGGCAGCTAGCTCGATAAATTTAAGG
oRH1095	CAGAATTCTAGCTCGATAAATTTAAGGTTTC
oRH1096	CTGAATTCTCTGAACATGTCTAGGGTTTCAG

Conserved sequence motifs in Brassicaceae AG Introns

Yellow/purple shades -- conserved known or putative binding sites

Green shades -- polymorphic sites in relation to *A. thaliana*

CCAATCA boxes

L. africanum	GACCAATCATGTCACTCTAATTTTGCCAGCATGGC-AGT-TGCAGCCAATCA--CTAG
Lobularia	AACCAATCATATCACTCTAATTTTGCCAGCTTGGT-AGC-TGTAGCCAATCA--CTAG
Coronopus	GACCAATCATGTCACTCTAATTTT-----TGGC-AGT-TACAGCCAATCA--CTAG
B. oleracea	GACCAATCATGTCACTC-AATTCCGCCAGCATGAA-AGT-TGTAGCCAATCA--CCAG
Draba	---AA-CATGT---T-----T-----TGCAGCCAATCA--GTAG
Barbarea	GACCAATCA-ATCACTCAAATTTTGCCAGCATGGC-AGT-TGCAGCCAATCA--CTAG
Eruca	-ACCAATCATGTCACTCTAATCTGGCCAGC-TGGC-AGT-TACAGCCAATCA--CTAG
Raphanus	GACCAATCATGTCACTCTAATTTTCGCCAGCATGGA-AGT-TGTAACCAATCA--CTAG
Alyssum	AACCAATCATGTCACTCTAATTTTGCCAGCTTGGC-AGC-TGTAGCCAATCA--GTAG
Thlaspi	GACCAATCATGTCACTCTAATTTTGCCAGCATGGC-AGT-TGCAGCCAATCA--CTAG
Berberoa	GACCAATCATGT-----TGCCAACTTGGCAGTT-TACAGCCAATCAGGTTAG
C. rubella	GACCAATCATGTCACTCTAATTTTGCCAGCGTGGCCAGT-TGCAGCCAATCA--GTAG
L. phlebopetalum	GACCAATCATGTCACTCTAATACTGCCAGCATGGC-TGC-TGCAACCAATCC--CTAG
Diplotaxis	GACCAATCATGTCACTCTAATTTTGCCAGCATGGC-AGT-TGCAGCCAATCA--CTAG
Erysimum	GACCAATCATGTCACTCTAATTTTGCCAGCATGGC-AGT-TGCAGCCAATCA--CTAG
Camelina	GACCAATCATGTCACTCTAATTTTGCCAGAACGGCCAGTTTGCAGCCAATCA--CTAG
Thysanocarpus	GACCAATCATGTCACTCTAATTTTGCCAGCATGGC-AGT-TGTAGCCAATCA--CTAG
Cakile	GACCAATCATGTCACTCTAATTTTGCCAGCATGGC-AGT-TGTAGCCAATCA--CTAG
Guillenia	GACCAATCATGTCACTCTAATTTTGCCAGCATGGC-AGT-TGCAGCCAATCA--CTAG
C. bursa-pastoris	GACCAATCATGTCACTCTAATTTTGCCAGCGTGGCCAGT-TGCAGCCAATCA--GTAG
A. arenosa	GACCAATCATGTCACTCTAATTTTGCCAGCATGGC-AGT-TGCAGCCAATCA--CCAG
A. thaliana	GACCAATCATGTCACTCTAATTTTGCCAGCATGGC-AGTTGGCAGCCAATCA--CTAG
A. pumila	GACCAATCATGTCACTCTAATTTTGCCAGCATGGC-AGT-TGCAGCCAATCA--CCAG
A. gunnisoniana	GACCAATCATGTCACTCTAATTTTGCAAGCATGGC-AGT-TGGAGCCAATCA--CTAG
Nasturtium	GACCAATCA-ATCAGTTAATTTTGCCAGCATGGC-AGT-CGCAGCCAATCA--CTAG
A. lyrata	GACCAATCATGTCACTCTAATTTTGCCAGCATGGC-AGT-TGCAGCCAATCA--CCAG
Conringia	GACCAATCATGTCACTCTAATTTTGCCAGCATGGC-AGT-TGCAGCCAATCA--CTAG
Cheiranthus	GACCAATCATGTCACTCTAATTTTGCCAGCATGGC-AGT-TACAACCAATCA--CTAG
Streptanthus	GACCAATCATGTCACTCTAATTTTGCCAGCATGGC-AGT-TGCAGCCAATCA--CTAG

aAGAAT box

L. africanum TTGTAAGATTTGTG--GTCTTTGTTACAGAATCTTTGAGAACGTCATC-ACACAGATATT
 Lobularia CTGTAAGATTTGTT--GTCTTTGTTACAGAATCTTTGATCACGTCATC-ATACAGATATT
 Coronopus TTGTAAGATTTGTT--GTCTTTGTTACAGAATCTTTGTAACGTCATC-ACACAGATATT
 B. oleracea CTGTAAGATTTGTT--GTCTTTGTTACAGAATCTTTGATCACGTCATC-ACTCAGATATC
 Draba TTTTAAGATTA-----AAAAT-----AATCAAACCTC
 Barbarea CTTTAAGATTTGTT--GTCTTTGTTACAGAATCTTTGATCACGTCATC-ACACAGATATT
 Eruca CTGTAAGATTTGTT--GTCTTTGTTACAGAATCTTTGATCACGTCATC-ACACGGATATT
 Raphanus TTGTAAGATTTGTT--GTCTTTGTTATAGAATCTTTGATCACGTCATC-ACACAGATATT
 Alyssum CTGTAAGATTTGTT--GTCTTTGTTACAGAATCTTTGATCACGTCATC-ATACAGATATT
 Thlaspi CTGTAAGATTTGTT--GTCTTTGTTAAAGAATCTTTGATCACGTCATC-ACACAGATATT
 Berteroa CTATAAGATTTGTT--GTCTTTGTTATAGAATCTTTGATAACGTCATC-ACACAGATATT
 C. rubella ATGTAAGATTTAATTTGTCTTTGTTAAAGAATCTTTATCACGTCATC-ACTCAGATATT
 L. phlebotetalum CTGTAAGATTTGTT--GTCTTTGTTAAAGAATCTTTGATCACGTCATC-ACTCAGATATT
 Diplotaxis CTGTAAGATTTGTT--GTCTTTGTTACAGAATCTTTGATCACGTCATC-ACACAGATATT
 Erysimum CTGTAAGATTTGTT--GTCTTTGTTACAGAATCTTTGATCACGTCATC-ACACAGATATT
 Camelina ATGTAAGATTTGTT--GTCTTTGTTACAGAATCTTTGATCACGTCATC-ACTCAGATATT
 Thysanocarpus CTGTAAGATTTGTT--GTCTTTGTTAGAGAATCTTTATCACGTCATC-ACACGGATATC
 Cakile CTGTAAGATTTGTT--GTCTTTGTTACAGAATCTTTGATCACGTCACC-ACACAGATATT
 Guillenia CTGTAAGATATGTT--GTCTGTGTTACAGAATCTTTGATCACGTCATC-ACACGGATATT
 C. bursa-pastoris ATGTAAGATTTGTT--GTCTTTGTTAAAGAATCTTTATCACGTCATC-ACTCAGATATT
 A. arenosa CTGTAAGATTTGTT--GTCTTTGTTAAAGAATCTTTGATCACGTCATCCACTCAGATATT
A. thaliana **CTGTAAGATTTGTT--GTCTTTGTTAAAGAATCTTTGATCACGTCATC-ACTCAGATATT**
 A. pumila CTGTAAGATTTGTT--GTCTTTGTTAAAGAATCTTTGATCACGTCATC-ACTCAGATATT
 A. gunnisoniana CTGTAAGATTTGTT--GTCTTTGTTACAGAATCTTTGATCACGTCATC-ACTCAGATATT
 Nasturtium TCTTTAGATTTGTT--GTCTTTGTTACAGAATCTTTGATCACGTCATC-ACACAGATATT
 A. lyrata CTGTAAGATTTGCT--GTCTTTGTTAAAGAATCTTTGATCACGTCATC-ACTCAGATATT
 Conringia CTGTAAGATTTGTT--GTCTTTGTTACAGAATCTTTGATCACGTCATC-ACACTGATATT
 Cheiranthus CTGTAAGATTTGTT--GTCTTTGTTATAGAATCTTTGATCACGTCATC-ACACAGATATT
 Streptanthus CTGTAAGATATGTT--GT-TTTGTTACAGAATCTTTGATAACGTCATC-ACATGAATATT

LBS/WBS1

L. africanum ATCACTCCAATGGTTA
 Lobularia ATTAGTC-ACTGGTTA
 Coronopus ATCACTTCAATGGTTA
 B. oleracea ATTAATCCGATGGTTA
 Draba ATTAATCCAATGGTTA
 Barbarea ATTAATCCAATGGTTA
 Eruca ATTAATCTGATGGTTA
 Raphanus ATTAATCCGATGGTTA
 Alyssum ATTAGTC-ACTGGTTA
 Thlaspi ATTAATCCAATGGTTA
 Berteroa CTTAACCCAATGGTTA
 C. rubella TCAAACCCAATGGTTA
 L. phlebopetalum ATCACTCCAATGGTTA
 Diplotaxis ATTAATCTGATGGTTA
 Erysimum ATTAATCCAATGGTTA
 Camelina TTAAATCCAATGGTTA
 Thysanocarpus ATTAATCCGATGGTTA
 Cakile ATTAATCCGATGGTTA
 Guillenia ATTAATCCGATGGTTA
 C. bursa-pastoris TTAAATCCAATGGTTA
 A. arenosa ATTAATCCAATGGTTA
A. thaliana **TTTAATCCAATGGTTA**
 A. pumila ATTAATCCAATGGTTA
 A. gunnisoniana ATTAATCTAATGGTTA
 Nasturtium GTTAATCCAATGGTTA
 A. lyrata ATTAATCCAATGGTTA
 Conringia ATTAGTCCAATGGTTA
 Cheiranthus ATTAATCCAATGGTTA
 Streptanthus ATTAAACCGATGGTTT

LBS/WBS2

CTGTTGGATTGA---ACAATGT--ATAATAG
 CTGTTGGGTAA---CTATTGT--GTAATGA
 CTGTTGGATTGA---ACAATGT--ATAATAG
 CTACTGGATTGA---CCATGT--GCAATGG
 CTGTTGGATTGA---CCAATGT--GTAATGG
 CTGCTAGATTGA---CCAATGT--GTAACGA
 CTACTGGATTGA---CCAATGT--GTAATGG
 CTAGTGGATTGA---CCAATGT--GTAATGG
 CTGTTGGGTAA---CTATTGT--GTAATGA
 CTACTAGATTGA---CCAATGT--ATAAGGG
 CTGTTGGGTGA---AGATTGTGTTTAATGG
 ATATTGGATTGA---CCGATGTGTTTATTGG
 CTGTTGGACTTA---TCAATGT--ATGATAG
 CTACTGGATTGA---CCAATGT--GTAATGG
 CTATTGGATTGA---CCAATGT--TTAATGT
 ATGTTGGATTGA---CCAATGT--CTTAATGG
 CTACTGGATTGA---CCAATGT--GTAATGG
 CTACTGGATTGA---CCAATGT--GTAATGG
 CTACTGGATTGA---CCAATGT--GTAATAG
 ATATTGGATTGA---CCGATGTGTTTATTGG
 CTATTGGATTGA---CCAATGTG--TTAATGG
CTATTGGATTGATACCCAATGTG--TTAATGG
 ATGTTGGATTGA---CCAATGTG--TTAACGG
 ATGTTGGATTGA---CCAATGT--GTAATGG
 CTGCTAGATTGA---TCAATGT--GTAACGG
 CTATTGGATTGA---CCAATGTG--TTAATGG
 CTGTTGGATTGA---CCAATGT--GTAATGG
 CTATTGGATTGA---CCAATGT--TTAATGT
 CTACTGGATTGA---CCAATGT--GTAATGG

LBS/WBS3

L. africanum CCATCCTCCATTGT-GTAATGTCTGT
 Lobularia CCATCCTCCATTGTGTTAATGTCTGT
 Coronopus CCATCCTCCATTGTGTTAAATTCTGT
 B. oleracea CCATCCTCCATTGTGTTAATGTCTGT
 Draba TCATCCTCCATTGTGTTAATTTCTGT
 Barbarea CCATCCTCCATTGTGTTAATGTCTGT
 Eruca CAATCCTCCATTGTGTTAATCTCTGT
 Raphanus CCATCCTCCATTGTGTTAATGTCTGT
 Alyssum CCATCCTCCATTGTGTTAATGTCTGT
 Thlaspi CCATCCTCCATTGTGTTAATGTCTGT
 Berteroa TCTTCTCCATTGTGTTAATGTCTGT
 C. rubella CCATCCTCCATTGTGTTAATGTCTGT
 L. phlebotetalum CCATCCTCCATTGTGTTAATGT-TAT
 Diplotaxis CCATCCTCCATTGTGTTAATGTCTGT
 Erysimum CCATCCTCCATTGTGTTAATGTCTGT
 Camelina CCATCCTCCATTGTGTTAATGTCTGT
 Thysanocarpus ACATCCTCCATTGTGTTAATGTCTG-
 Cakile CCATCCTCCATTGTGTTAATTTCTGT
 Guillenia CCATCCTCCATTGTGTTAATGTCTGT
 C. bursa-pastoris CCATCCTCCATTGTGTTAATGTCTGT
 A. arenosa -CATCCTCCATTGTGTTAATGTCTGT
A. thaliana **CCATCCTCCATTGTGTTAATGTCTGT**
 A. pumila ATCTCCTCCATTGTGTTAATGTCTGT
 A. gunnisoniana CCATCCTCCATTGTGTTAATGTCTGT
 Nasturtium CCATCCTCCATTGTGTTAATGTCTGT
 A. lyrata CCATCCTCCATTGTGTTAATGTCTGT
 Conringia CCATCCTCCATTGTGTTAATGTCTG-
 Cheiranthus CCATCCTCCATTGTGTTAATGTCTGT
 Streptanthus CCATCCTCCATTGTGTTAATGTCTGT

LBS4

TCACATTTGGT--CAATA--CCAC-AATGC
 TTTTGTTCGT--AAATAG-AAGC-CACAA
 TCACATTTGGT--CAATA--CCAC-AATAT
 TCGCATATGGT--CAATAC-CTAA-TATAA
 TCACATTTGGT--CAATAC-CCAA-TATGA
 TCACATTTGGT--CAATAC-CCAA-TGAAT
 TCACATTTGGT--CAATAC-CTAA-TATAA
 TCACATTTGGT--CAATAC-CTTA-TATAA
 TTTTGTACGT--AAATAG-AAGC-CACAA
 TCACATTTGGT--CAATAC-CCAA-TATTA
 TCACATTTGGT--CATTACC-CAA-ACATA
 TCACATTTGGT--CAATAC-CCAATGTTC
 TCACATTGTGTATCAATACC-CAA-TGTTT
 TCACATTTGGT--CAATAC-CTTA-TATAA
 TCACATTTGGC---AATAC-CAA-TGTTC
 TCACATTTGGT--CAATAC-CAA-TGTTT
 TTACATTTGGTG-AAATAC-CAA-TATAA
 TCCCATTTGGT--CAATAC-CTAA-TATAA
 TCAAATTTGGT--CAATAC-CAA-TATAA
 TCACATTTGGT--CAATAC-CAA-TGTTT
 TCTCACTGGC---AATAC-CAA-TGTTC
TCTCATTTGGT--CAATAC-CAA-TGTTT
 TCACATCTGGTC-AAATAC-CAA-TGTTC
 TCACATTTGGT--CAATAC-CAA-TGTTC
 TCACATTTGGT--CAATAC-CAA-TGTAA
 TCTCACTGGT--CAATAC-CAA-TGTTC
 TCACGTTTGGT--CAATAC-CAA-TATAT
 TCACATTTGGT--CAATAC-CAA-TGTTC
 TCACATTTGGT--TAATAC-CAA-TATAA