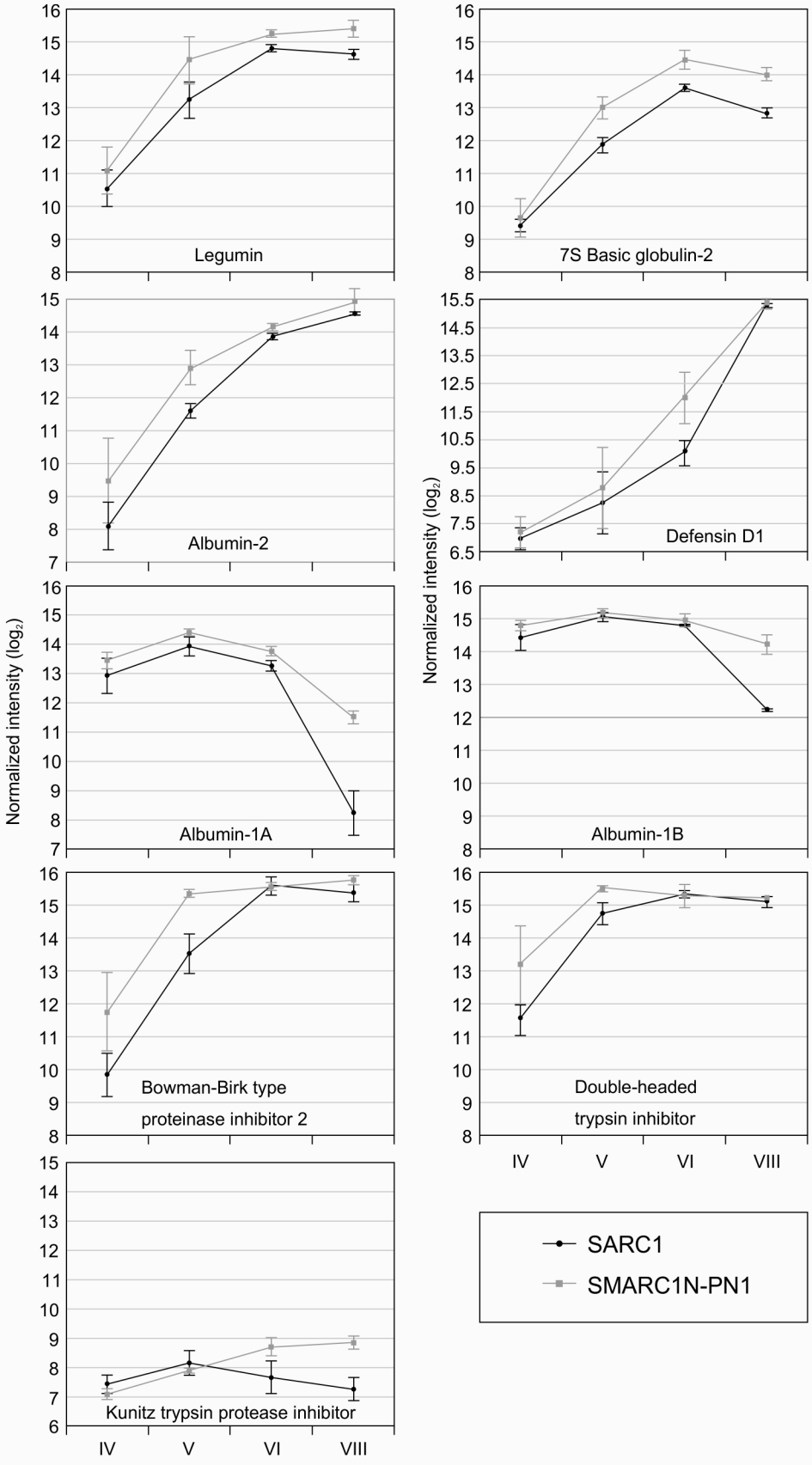
Legumin
7S Basic globulin-2
Albumin-2
Defensin D1
Albumin-1A
Albumin-1B
Bowman-Birk type
proteinase inhibitor 2
Double-headed
trypsin inhibitor
Kunitz trypsin protease inhibitor
Normalized intensity (log2)
IV
V
VI
VIII
SARC1
SMARC1N-PN1

Fig. S1

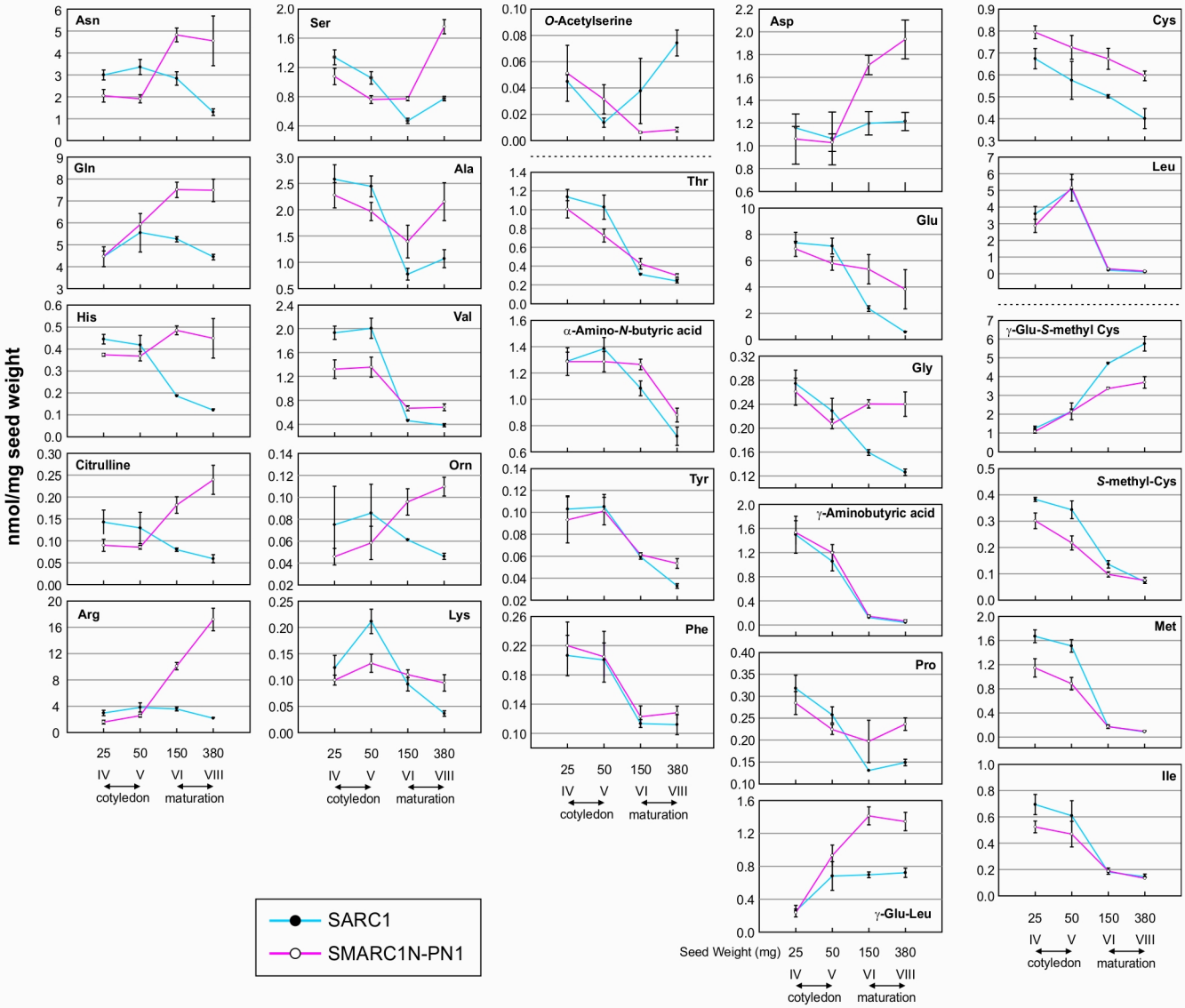
nmol/mg seed weight
Asn
Ser
O-Acetylserine
Asp
Cys
Gln
Ala
Thr
Glu
Leu
His
Val
α-Amino-N-butyric acid
Gly
γ-Glu-S-methyl Cys
Citrulline
Orn
Tyr
γ-Aminobutyric acid
S-methyl-Cys
Arg
Lys
Phe
Pro
Met
γ-Glu-Leu
Ile
25 50 150 380
IV V VI VIII
cotyledon maturation
Seed Weight (mg)
SARC1
SMARC1N-PN1

Fig. S2

Table S1. Primers used for RT-quantitative PCR validation of differentially expressed genes from microarray data

Enzyme	Gene	Contig	Protein	Forward primer	Reverse primer
Sulfate adenylyltransferase	*ATPS1*	CL238Contig2	Phvulv091023286m	5'-GTCCCACTTGATTGGAGAATGAAAC-3'	5'-GGTCCAGCATAGTGCATGGGAGA-3'
Adenylyl sulfate reductase	*APSR1*	CL1146Contig2	Phvulv091014626m	5'-CGACCAATCAAGTACCCTTCTG-3'	5'-TGCTACCAAAACTGCCATCATC-3'
Sulfite reductase	*SIR*	-	Phvulv091016899m	5'-TGGCGACTTCACAAACAGACTG-3'	5'-GTATCCTCCTTGACTGAGTAAATGG-3'
Sulfite oxidase	*SO*	CL6806Contig1	Phvulv091007084m	5'-TTGTTCCTGGTGTCATTGGA-3'	5'-CTGCGGGTAGACCAATCAAT-3'
Serine acetyltranferase	*SERAT1;1*	PVUSE3NG_RP_008_F02	Phvulv091024096m	5'-ACCATACTTCCTTTATCTCTGAGTG-3'	5'-CAGTATATGTACTCTCAGCAGTAAC-3'
	SERAT1;2	PVUSE3NG_RP_008_F02	Phvulv091017245m	5'-ACCATACTTCCTTTATCTCTGAGTG-3'	5'-CAAAGCAATAATCAACCTTTTCATAC-3'
	SERAT2;1	CL1591Contig1	Phvulv091018072m	5'-ACAACCCCTCTTTCTCGCAAG-3'	5'-GAACTCAAGAACACCAAGACCATC-3'
Cystathionine β-lyase	*CBL*	CL6595Contig1	Phvulv091030867m	5'-GTTGGCTTTGTATGCGAGGAATC-3'	5'-TGAAAGTGCCAGTGAACCAG-3'
Homocysteine *S*-methyltransferase	*HMT3*	CL2920Contig1	Phvulv091009184m	5'-TCAAGTGGGTTAGCAGAGGAT-3'	5'-CATATATTGCCTCCGCTATG-3'
Methionine γ-lyase	*MGL1*	CL2938Contig2	Phvulv091009184m	5'-GTGCTGATGTGGTGGTTCAC-3'	5'-CCACCTTTGGGTTCATCGTA-3'
Branched-chain-amino-acid aminotransferase	*BCAT1*	CL2797Contig2	Phvulv091000898m	5'-TGGCTCCTGCACCTGAATACACAT-3'	5'-AAGCACGGTCAAAGTTCTCCTCCA-3'
Tyrosine aminotransferase	*TAT*	CL481Contig1	Phvulv091026436m/-7m	5'-ACTGCAAAACGGGTTGGAACA-3'	5'-GATGAAAGTGGCTGGACCTCCCA-3'
Selenium binding protein	*SBP*	CL360Contig1	Phvulv091015749m	5'-ACAGGTTTTGTTGGGAGTGC-3'	5'-ATGTCCTCAATGTTATATTGCCTT-3'
Ubiquitin	-	CL1Contig148	Phvulv091024910m	5'-ACAGCTGGAGGATGAAAGGA-3'	5'-GTCCGAACTCTCCACCTCAA-3'