

a)

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At3g12240 VYENGP-----LAFKVE-TYNGSVPTLVSTTYSWTKTANIFLDQPVGTGFSYNTSSD---NPFAD
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At4g15100 **NL**DD**HFA**KD**AYT**FLC**NW**FE**K**-F**PE**HKGNE**FY**I**TG**ES**YAGI**Y**VP**LA**ELV**YD**N**E**K**N-----D**LS**L**HL**IN**LK**G**FL**GN**P**DIS
At1g61130 **KL**GDD**FA**RD**SVT**FLQ**W**FL**R**-F**PA**YKE**KD**FF**I**T**G**ES**YAGK**Y**VP**LA**EV**YD**K**N**D**N-----E**N**LS**L**HL**IN**L**K**G**IL**GN**P**LS
Os01g22980 **SID**DR**FA**ED**Y**FN**FL**V**NW**FK**R**-F**FP**YK**NH**D**FF**I**TG**ES**YAGH**Y**VP**LA**DV**Y**Y**ER**N**K**H**V-----E**T**N**Q**HL**IN**L**K**G**F**IV**GN**AE**TD**
Os05g06660 **NL**ND**FA**ED**AY**S**FL**V**NW**FK**R**-F**FP**YK**D**NE**FY**I**S**G**ES**Y**AGH**Y**VP**LA**DV**Y**Y**ER**N**K**D**K-----R**AS**T**Y**IN**LK**G**F**IV**GN**PL**TD**
At3g17180 **NL**ND**FA**ED**AY**N**FM**V**AV**FA**R**-F**FP**YK**S**R**D**FF**I**T**G**ES**YAGH**Y**VP**LA**EL**Y**D**R**N**K**V**Q-----P**K**D**S**F**IN**L**K**G**F**IV**GN**PL**TD**
At5g08260 **KL**GDE**FA**SD**SLA**FL**NW**FM**K**-F**PE**FR**S**SE**FY**I**S**G**ES**Y**AGH**Y**VP**LA**EV**Y**D**R**N**K**V**-----T**K**D**S**S**IN**L**K**G**F**IV**GN**NA**V**IN
Os04g44410 **RL**GDR**VA**T**AD**SY**S**FL**NW**LN**K**-F**PE**FK**N**R**D**F**Y**I**TG**ES**YAGH**Y**VP**LA**EL**Y**D**G**N**K**GA**-----S**R**D**R**V**IN**L**K**G**F**IV**GN**NA**V**LN
At5g23210 **QL**GDT**VA**RD**SY**N**FL**V**NW**FK**R**-F**FP**YK**S**H**D**F**Y**I**TG**ES**YAGH**Y**VP**LA**EL**Y**Y**KE**N**K**IA**-----S**K**K**D**F**IN**L**K**G**L**M**IG**NA**L**LD
Os02g42310 **QL**GDK**IA**T**AD**DA**Y**IF**LL**N**W**FK**R**-F**FP**YK**S**H**D**F**Y**I**TG**ES**YAGH**Y**VP**LA**SE**K**I**F**D**G**N**K**Q**-----P**K**EN**Y**IN**FK**G**F**IV**GN**NA**L**MD
Os10g39560 **FP**GD**N**SY**AG**SY**T**FL**R**W**F**Q**R**-F**FP**HK**M**KE**FY**I**TG**ES**YAGH**Y**VP**LA**N**V**I**D**Q**N**K**IA-----P**K**EN**Y**IN**LK**G**M**IG**NA**Y**MD**
Os06g51370 **H**FD**N**L**IA**D**DA**Y**IF**LL**NW**FK**R**-F**FP**Y**Q**Y**R**D**FY**I**TG**ES**YAGH**Y**VP**LA**K**K**I**H**LY**N**K**AF**N**-----N**T**P**I**IN**LK**G**F**IV**GN**NA**IM**
At2g24000 **E**SD**ER**IA**Q**EN**L**I**FL**I**S**W**S**R-**FP**Y**Y**R**D**F**Y**I**TG**ES**YAGH**Y**VP**LA**Q**K**I**HE**Y**N**AY**K-----N**P**V**IN**L**K**G**F**IV**GN**NA**IM**
At2g24010 **E**SD**ER**IA**Q**EN**L**I**FL**I**S**W**S**R-**FP**Y**Q**Y**R**D**FY**I**TG**ES**YAGH**Y**VP**LA**K**K**I**H**LY**N**K**AF**N**-----N**T**P**I**IN**LK**G**F**IV**GN**NA**IM**
At4g30610 **D**SD**ER**IA**Q**EN**L**I**FL**I**K**W**S**R-**FP**Y**Y**R**D**F**Y**I**TG**ES**YAGH**Y**VP**LA**K**K**I**ND**Y**N**K**AF**S**-----K**P**I**IN**L**K**G**F**IV**GN**NA**IM**
Os02g55130 **T**SD**ER**IA**Q**AD**L**Q**L**I**S**W**S**R-**FP**Y**Y**R**H**R**D**F**Y**I**TG**ES**YAGH**Y**VP**LA**K**K**I**VE**F**N**K**AS**F**-----Y**P**F**IN**L**K**G**IL**V**GN**NA**IM**
At3g02110 **N**TG**DR**RA**K**AD**SL**Q**L**I**Q**W**L**H**R**-F**FP**Y**N**H**R**E**Y**I**TG**ES**YAGH**Y**VP**LA**K**E**I**M**N**Y**K**RS**K**-----N**P**L**N**L**K**G**IM**V**GN**NA**IM**
At3g07990 **T**TG**D**Q**R**IA**D**SS**IF**L**NW**FK**R**-F**FP**Y**K**H**R**E**FY**I**TG**ES**YAGH**F**VP**LA**SL**K**L**V**HER**N**K**-G**F**-----K**N**P**AIN**L**K**G**F**IV**GN**NA**IM**
Os01g61690 **V**AG**DA**K**IA**SD**AY**AF**LV**N**W**FK**R**-F**FP**Y**K**Y**R**E**FY**I**TG**ES**YAGH**Y**VP**LA**Q**L**I**VE**Q**N**K**-G**I**-----Q**N**P**I**IN**LK**G**F**IV**GN**NA**IM**
At2g35780 **T**AG**D**Q**R**IA**D**AY**AF**LV**NW**FK**R**-F**FP**Y**K**H**R**E**FY**I**TG**ES**YAGH**Y**VP**LA**S**Q**I**VE**K**-----R**N**P**AIN**FK**G**F**IV**GN**NA**IM
Os01g06490 **T**AG**D**N**K**IA**D**SY**AF**LV**NW**FK**R**-F**FP**Y**K**Y**R**D**FY**I**TG**ES**YAGH**Y**VP**LA**S**Q**L**V**Y**R**N**K**D**V-----E**K**P**IL**N**LK**G**F**IV**GN**NA**IM**
At4g30810 **S**NG**D**K**IA**SD**SL**K**FL**L**K**W**IE**R-**FP**EY**K**GR**D**F**Y**I**TG**ES**YAGH**Y**VP**LA**S**E**I**V**K**H**N**Q**S**-----D**K**N**S**IN**LK**G**Y**M**V**GN**GL**MD
Os06g08720 **N**NG**D**A**R**IA**D**SL**T**FL**T**K**W**IE**R**-F**FP**Y**K**GR**E**F**Y**I**TG**ES**YAGH**Y**VP**LA**Q**A**I**K**R**H**E**-A**T**-----G**K**S**IN**L**K**G**Y**M**A**GN**AL**F**D**
At2g35770 **T**VG**D**K**R**IA**D**SY**AF**LV**NW**FK**R**-F**PE**Y**K**E**R**AF**Y**I**TG**ES**YAGH**Y**VP**LA**Q**L**I**V**N**R**N**K**-GA**-----K**N**P**I**IN**LK**G**IL**M**GN**PL**VD**
Os09g28830 **K**SG**D**Q**R**IA**D**SY**AF**LV**NW**FK**R**-F**PE**Y**K**GR**AF**Y**I**T**G**ES**YAGH**Y**AP**LA**A**T**I**L**T**H**M**ES**K**-----R**M**I**IN**L**Q**G**IL**V**GN**NA**IM**
Os09g28840 **D**VG**D**Q**I**IA**D**SY**VP**LV**NW**FK**R**-F**PE**Y**K**GR**D**F**Y**I**TG**ES**YAGH**Y**VP**LA**I**T**I**V**FIN**HL**F**D**G**-----N**T**P**FL**N**RG**I**V**GN**PL**LD
Os07g46350 **R**MG**D**N**SY**AD**AY**K**FL**V**NW**FK**R**-F**PE**Y**K**GR**D**F**Y**I**TG**ES**YAGH**Y**VP**LA**H**A**I**L**R**HS**AA**AG**K**F**SS**S**S**IN**LK**G**M**IG**NA**IM
Os03g26920 **N**TG**D**T**SY**AD**AY**T**FL**T**NW**IE**R**-F**PE**Y**K**GR**D**FF**I**T**G**ES**YAGH**Y**VP**LA**N**A**I**L**S**N**N**IT**N**-----V**I**I**IN**L**K**G**VA**IGN**AY**LD
Os03g26930 **N**IG**D**K**IT**AD**AY**I**FL**I**NW**FK**R**-F**PE**Y**K**GR**D**FF**I**T**G**ES**YAGH**Y**VP**LA**N**L**I**V**S**N**R**A**I**N-----S**T**N**I**K**L**G**VA**IGN**AD**LD
Os03g09190 **T**IG**D**N**IA**D**SH**T**FL**L**R**W**LD**R-**FP**EY**K**TR**D**L**F**I**TG**ES**YAGH**Y**VP**LA**V**T**I**L**D**N**L**L**PH**-----A**TP**I**K**L**G**IA**IGN**G**IL**E
At3g52000 **Q**KG**D**K**IA**ED**DN**M**FL**V**NW**FK**R**-F**PE**Y**K**GR**D**I**Y**I**AG**SY**AGH**Y**VP**LA**Q**I**I**L**H**R**N**-N**Q**T**L**I**N**-----L**R**G**IL**IG**N**PS**L**N
At3g52010 **E**KG**D**K**IA**ED**DN**I**FL**M**NW**IE**R**-F**PE**Y**K**GR**D**I**Y**I**AG**SY**AGH**Y**VP**LA**Q**I**I**L**H**R**N**-K**T**L**I**V**N**-----L**R**G**IL**IG**N**PS**L**L
At3g50850 **Q**AD**K**K**IA**ED**DN**M**FL**V**NW**FK**R**-F**PE**Y**K**GR**D**V**Y**I**AG**SY**AGH**Y**VP**LA**Q**I**I**L**H**R**N**-N**Q**T**F**I**N**-----L**R**G**IS**IG**N**P**GL**D
At3g52020 **N**PG**D**M**K**AA**D**K**Y**IF**LV**W**IE**R-**FP**EY**K**GR**E**F**Y**I**TG**ES**YAGH**Y**VP**LA**Q**T**I**L**V**H**N**K**Q**N**F**I**N**-----L**R**G**IL**IG**N**P**TL**N
At3g63470 **-H**GD**R**N**IA**ED**DN**I**FL**V**NW**FK**R**-F**PE**Y**K**GR**D**L**Y**I**TG**ES**YAGH**Y**VP**LA**H**T**I**L**L**H**-RS**F**F**N-----L**K**G**IL**IG**NA**IM
At1g28110 **G**VND**K**IA**D**N**L**V**L**Q**R**W**FL**K-**FP**EY**L**N**R**S**L**FF**I**T**G**ES**YAGH**Y**VP**LA**EL**M**I**Q**Y**N**-K**-----K**H**HL**FN**L**RG**IA**IGN**P**V**LE
At2g33530 **G**VND**K**IA**D**N**L**V**L**Q**R**W**FL**K-**FP**Y**L**N**R**S**L**FF**I**T**G**ES**YAGH**Y**VP**LA**Q**L**M**I**Q**Y**N**-K-----K**H**N**L**FN**L**RG**IA**IGN**P**VM**E**
Os04g32540 **G**VGD**S**R**IA**D**N**R**L**Q**W**FL**K**-F**FP**Y**K**GR**D**L**Y**I**TG**ES**YAGH**Y**VP**LA**Q**R**M**VE**F**N**-K**-----K**E**K**L**FN**L**RG**IA**IGN**P**VLE
Os11g31980 **G**VDD**K**M**IA**D**N**M**FL**V**NW**FK**R**-F**PE**Y**K**GR**E**L**Y**I**S**G**ES**Y**AGH**Y**VP**LA**D**V**M**VE**F**N**-K**-----K**N**K**I**FN**L**RG**IA**IGN**P**VLE
At2g12480 **-T**GD**K**S**IA**D**N**M**L**V**L**L**R**W**FK**-F**PE**L**K**S**R**D**L**FF**I**T**G**ES**YAGH**Y**VP**LA**D**A**I**L**S**Y**S**-R**S**-----S**G**F**K**FN**L**RG**IA**IGN**P**LLK
At5g42240 **-T**GD**K**S**IA**D**N**M**L**V**L**L**R**W**FK**-F**PE**L**K**S**R**D**L**FF**I**T**G**ES**YAGH**Y**VP**LA**D**A**I**L**S**Y**S**-H**S**-----S**G**F**K**FN**L**RG**IA**IGN**P**LLK
At5g42230 **-A**GD**K**S**AA**S**D**M**L**V**L**L**R**W**FD**K-**FP**E**L**K**S**H**D**L**FF**I**TG**ES**YAGH**Y**VP**LA**D**A**I**L**S**Y**S**-R**S**-----S**G**F**K**FN**L**RG**IA**IGN**P**LLK
At1g43780 **-T**GD**E**S**IA**D**N**M**L**V**L**L**R**W**IE**K-**FP**Y**K**TR**N**L**FL**AG**ES**Y**AGH**Y**VP**LA**D**V**I**E**Y**NA**Q**R**S**-----N**R**F**K**FN**L**RG**IA**IGN**P**LLK
Os11g10750 **-T**GD**QA**D**N**M**Y**K**FL**L**Q**W**FK**-F**PE**Y**R**S**R**G**LL**S**GES**Y**AGH**Y**VP**LA**D**V**I**L**T**H**E**-K**S**-----N**G**F**K**FN**L**RG**IA**IGN**P**LLK
At1g73300 **K**PS**D**SG**E**AK**R**IE**FL**Q**K**W**L**G**K**-H**Q**F**S**SN**PF**Y**V**AG**D**SY**SG**L**V**PA**IV**Q**E**IS**K**GN**Y**EC**C**-----N**P**P**I**N**LQ**G**Y**VL**GN**PL**TD**
At5g36180 **K**PS**D**SG**E**AK**R**IE**FL**Q**K**W**L**G**K**-H**Q**F**S**SN**PF**Y**V**AG**D**SY**SG**L**V**PA**IV**Q**E**IS**K**GN**Y**EC**C**-----N**P**P**I**N**LQ**G**Y**VL**GN**PL**TD**
At1g73280 **K**PS**D**SG**E**AK**R**IE**FL**Q**K**W**L**G**K**-H**Q**F**S**SN**PF**Y**V**AG**D**SY**SG**M**V**PA**IV**Q**E**IS**K**GN**Y**EC**C**-----N**P**P**I**N**LQ**G**Y**VL**GN**PL**TD**
At1g73310 **K**PS**D**SG**E**AK**R**IE**FL**Q**K**W**L**G**K**-H**Q**F**S**SN**PF**Y**V**AG**D**SY**SG**L**V**PA**IV**Q**E**IS**K**GN**Y**EC**C**-----N**R**P**I**N**LQ**G**Y**VL**GN**PL**TD**
At1g73290 **K**PS**D**SG**E**AK**R**IE**FL**Q**K**W**L**G**K**-H**Q**F**S**SN**PF**Y**V**AG**D**SY**SG**M**V**PA**IV**Q**E**IS**K**GN**Y**EC**C**-----S**P**P**I**N**LQ**G**Y**VL**GN**P**ITE**
At1g73270 **K**PS**D**SG**E**AK**R**IE**FL**Q**K**W**L**G**K**-H**Q**F**S**SN**PF**Y**V**AG**D**SY**SG**I**VP**PA**IV**Q**E**IS**K**GN**Y**EC**C**-----K**P**P**I**N**LQ**G**Y**VL**GN**P**ITD**
At3g10450 **K**PS**D**SG**E**AK**R**IE**FL**H**K**W**L**G**K**-H**Q**F**S**SN**PF**Y**V**AG**D**SY**CG**M**V**PA**IV**Q**E**IS**K**GN**Y**EC**C**-----K**P**P**I**N**LQ**G**Y**VL**GN**P**ITE**
At2g22920 **T**PS**D**TGE**V**K**R**IE**FL**Q**K**W**L**G**K**-H**Q**F**S**SN**PF**Y**AG**D**SY**SG**M**IV**PA**IV**Q**EIS**K**GN**Y**EC**C**-----K**P**P**I**N**LQ**G**Y**VL**GN**P**ITE**
At2g22970 **T**PD**T**GE**V**K**R**IE**FL**Q**K**W**L**G**K**-H**Q**F**S**SN**PF**Y**AG**D**SY**SG**M**IV**PA**IV**Q**EIS**K**GN**Y**EC**C**-----N**P**P**I**N**LQ**G**Y**VL**GN**P**ITE**
At2g23000 **S**-SD**T**SE**V**K**R**IE**FL**Q**K**W**L**G**K**-H**Q**F**S**SN**PF**Y**V**AG**D**SY**SG**M**IV**PA**IV**Q**E**IS**K**GN**Y**EC**C**-----K**H**L**I**N**LQ**G**Y**VL**GN**P**ITE**
At2g23010 **T**-SD**T**SE**V**K**R**IE**FL**Q**K**W**L**G**K**-H**Q**F**S**SN**PF**Y**V**AG**D**SY**SG**M**IV**PA**IV**Q**E**IS**K**GN**Y**EC**C**-----N**P**P**I**N**LQ**G**Y**VL**GN**P**ITE**
At2g22990 **T**-GD**I**SE**V**K**R**IE**FL**Q**K**W**L**G**K**-H**Q**F**S**SN**PF**Y**V**AG**D**SY**SG**M**IV**PA**IV**Q**E**IS**Q**GN**Y**EC**C**-----E**P**P**I**N**LQ**G**Y**VL**GN**P**ITE**
At2g22980 **K**IS**D**TGE**V**K**R**IE**FL**Q**K**W**L**G**K**-H**Q**F**S**SN**PF**Y**V**AG**D**SY**SG**M**IV**PA**IV**Q**E**IS**Q**GN**Y**EC**C**-----N**Y**Q**I**N**LQ**G**Y**VL**GN**P**ITE**
At3g12230 **R**PS**D**TGS**A**K**L**V**N**E**F**VR**K**W**L**A**K**-H**PE**Y**S**SN**PF**Y**T**GN**SY**SG**K**V**PA**IV**Q**EIS**NG**Y**EC**C-----K**P**Q**I**N**LQ**G**Y**VL**GN**P**VA**
At3g12240 **I**PS**D**TGS**V**K**R**V**N**E**F**VR**K**W**L**A**K**-H**PE**Y**S**SN**PF**Y**T**GN**SY**SG**K**V**PA**IV**Q**EIS**NG**Y**EC**C-----K**P**Q**I**N**LQ**G**Y**VL**GN**P**VA**
At3g12220 **I**PS**D**TGS**A**K**R**V**D**E**F**LR**K**W**L**T**K**-H**PE**Y**S**SN**PF**Y**AG**GN**SY**SG**K**M**V**PA**IV**Q**E**IS**NG**C**Y**I**G**-----K**P**Q**I**R**LQ**G**Y**VL**GN**P**VA**
At3g12203 **I**PS**D**TG**V**A**K**V**N**E**F**LR**K**W**L**D**K**-H**PE**Y**S**SN**PL**Y**AG**GN**SY**SG**I**V**PT**I**V**Q**E**IS**NG**H**L**D**S**-----K**P**Q**I**N**LQ**G**Y**VL**GN**P**ATD**
At1g33540 **K**PS**D**TGE**A**K**Q**Y**EF**LQ**K**W**L**VE-**N**P**Q**F**S**N**PF**Y**V**AG**D**SY**AG**I**V**PA**IV**Q**Q**I**S**IGN**EH**G**Y**-----K**P**Q**I**N**LK**G**Y**VL**GN**P**STD**
At5g09640 **E**SS**D**TK**Q**M**H**Q**D**Q**FL**R**S**W**F**V**K**-H**PE**F**I**S**N**PF**Y**VAG**D**SY**SG**K**I**V**PA**V**Q**Q**I**S**L**GN**E**K**GL**-----T**P**L**I**N**I**Q**Y**VL**GN**P**STD**
Os10g01110 **R**TG**D**T**IA**V**H**HL**V**FL**N**N**W**FQ**EV**H**PD**FL**S**N**PL**Y**AG**D**SY**SG**M**IV**PA**V**T**F**GI**A**T**-----S**S**F**P**-----K**P**S**L**N**LK**G**Y**LL**GN**P**STD**
Os11g42390 **R**TG**D**T**IA**V**H**HL**V**FL**R**K**W**LQ**EV**H**PA**K**PG**F-----Y**R**G**W**CP**D**G**Y**LL**GN**P**STD**
Os04g09720 **K**SS**D**T**I**V**H**Q**L**Y**T**IQ**K**W**FD**-H**Q**F**S**SN**PL**Y**V**SG**D**SY**SG**I**I**PT**L**ME**I**A**K**G**ESS**D-----E**R**HL**N**L**K**G**Y**IA**GN**PL**TD**
Os02g46260 **D**VG**D**IS**SS**MQ**I**V**K**FL**R**W**L**D**D**-H**PK**Y**L**SN**PF**Y**I**GG**D**SY**AG**K**V**PL**I**T**Q**Y**L**SE**G**IE**EM**R-----H**P**I**IN**L**K**G**Y**VL**GN**PS**AG**
Os03g52080 **N**VGD**I**SS**LQ**V**V**T**FL**K**K**W**FD**-H**PS**Y**L**SN**PF**Y**V**GG**S**SY**AG**-----K**G**Y**M**V**G**SP**LD**
Os11g24510 **D**VG**D**V**S**SL**LQ**L**K**V**N**W**FS**-H**R**E**F**LS**N**PL**Y**VGG**S**Y**AG**K**L**V**PL**L**Q**K**I**SE**D**VE**AG**V-----K**P**V**L**N**LK**G**Y**VL**GN**P**GTG**
Os12g39170 **L**VGD**V**SA**S**L**Q**L**K**FL**A**K**W**L**D**-H**PE**Y**L**AN**PF**Y**I**GG**D**SY**AG**K**I**V**PL**Q**K**I**S**E**D**IE**AG**V-----R**P**I**V**L**K**G**Y**VL**GN**P**VTG**
Os10g01130 **N**VTL**T**Q**Q**Q**L**V**V**PL**T**K**W**L**D**-H**PE**FA**S**N**PL**Y**I**GG**D**SY**SG**I**V**PA**IV**Q**Q**I**AND**D**ARA**-----R**-L**N**L**K**G**Y**VL**GN**AA**

Os01g11670 FVAQV-----ATHADIAVFMGLINAKQRRELEALQARAVELTNAARWSEADARELVLSLLE
Os05g50600 FVAQV-----ATHADIAVFMGLINAKQRRELEALQARAVELTNAARWSEADARELVLSLLE
Os06g36570 RGGW-----PTRGS-----S-----CCRCWTRRADTRELVLKSLLE
Os05g50570 FVAQV-----TTHADIAVFMGLINGKQKREVEAMQARAVELTNAARWSEADARELVLSLLE
Os05g50580 FVAEV-----TTHADIAVFMGLINAKQKRAEAMQAEAVALTREERWREASAAARARLMSWLE
Os01g43890 FVAQV-----TVHADQAYFAGLINAKQKAKVEEMQDKTVSLIKSKKWAAARRERNRIAFLEK
At1g15000 FVAQV-----QTHAVNVYYSGLVNAKQKREVEAMQAEAVALTREERWREASAAARARLMSWLE
At1g11080 DADWD-----RGWVDYAWSHAVISDETHRIITRTCN-----FSSDNTWSNDECNAAEAEVLKQY
At4g15100 NPDDW-----RGWVDYAWSHAVISDETHRIITRTCN-----FSSDNTWSNDECNAAEAEVLKQY
At1g61130 YAEWD-----TGWVDYAWSHAVISDETHRIITRTCN-----FSSDNTWSNDECNAAEAEVLKQY
Os01g22980 DYVDY-----KGLVEFAWSHAVISDETHRIITRTCN-----FSSDNTWSNDECNAAEAEVLKQY
Os05g06660 DYVDS-----KGLVEFAWSHAVISDETHRIITRTCN-----FSSDNTWSNDECNAAEAEVLKQY
At3g17180 DEVDN-----KGLVEFAWSHAVISDETHRIITRTCN-----FSSDNTWSNDECNAAEAEVLKQY
At5g08260 EADMD-----AGLVDYAWSHAVISDETHRIITRTCN-----FSSDNTWSNDECNAAEAEVLKQY
Os04g44410 DADTD-----MGMEYAWSHAVISDETHRIITRTCN-----FSSDNTWSNDECNAAEAEVLKQY
At5g23210 DEVDN-----KGMIEYAWSHAVISDETHRIITRTCN-----FSSDNTWSNDECNAAEAEVLKQY
Os02g42310 DEVDN-----TGMIDYAWSHAVISDETHRIITRTCN-----FSSDNTWSNDECNAAEAEVLKQY
Os10g39560 GDDDL-----LGLVDSAWSHAVISDETHRIITRTCN-----FSSDNTWSNDECNAAEAEVLKQY
Os06g51370 SSSDD-----RGLVEYAWSHAVISDETHRIITRTCN-----FSSDNTWSNDECNAAEAEVLKQY
At2g24000 KNNDR-----LGTITTYWWSHAMISDASYNRLKNCDFE-----ADRFSEKED-SAIYVAAADF
At2g24010 KHVDR-----LGAAMYAWSHAMISDASYNRLKNCDFE-----ADRFSEKED-SAIYVAAADF
At4g30610 NQVDS-----IGTVTYWWSHAMISDASYNRLKNCDFE-----ADRFSEKED-SAIYVAAADF
Os02g55130 NYVDN-----IGTVTYWWSHAMISDASYNRLKNCDFE-----ADRFSEKED-SAIYVAAADF
At3g02110 NHVDN-----LGTVSYWWSHAMISDASYNRLKNCDFE-----ADRFSEKED-SAIYVAAADF
At3g07990 DYHDY-----LGTFEYWWTHGLISDNTYHNLKKTCLLE-----SSEHPSKCTKAMEAADLEQ
Os01g61690 DYHDY-----LGTFEYWWTHGLISDNTYHNLKKTCLLE-----SSEHPSKCTKAMEAADLEQ
At2g35780 DYHDY-----VGLFEYWWTHGLISDNTYHNLKKTCLLE-----SSEHPSKCTKAMEAADLEQ
Os01g06490 DYHDY-----VGLFEYWWTHGLISDNTYHNLKKTCLLE-----SSEHPSKCTKAMEAADLEQ
At4g30810 DFDHR-----LGLFQYIWSLGLISDNTYHNLKKTCLLE-----SSEHPSKCTKAMEAADLEQ
Os06g08720 DFDHD-----LGLFQYIWSLGLISDNTYHNLKKTCLLE-----SSEHPSKCTKAMEAADLEQ
At2g35770 DYNDN-----KGMIRDYWWTHGLISDNTYHNLKKTCLLE-----SSEHPSKCTKAMEAADLEQ
Os09g28830 EFNKL-----KQIDYVWSHGLISDNTYHNLKKTCLLE-----SSEHPSKCTKAMEAADLEQ
Os09g28840 EYKNG-----EGNLEFVWSHGLISDNTYHNLKKTCLLE-----SSEHPSKCTKAMEAADLEQ
Os07g46350 DWDDT-----KGMIDYVWSHGLISDNTYHNLKKTCLLE-----SSEHPSKCTKAMEAADLEQ
Os03g26920 DSNNT-----RATIDYVWSHGLISDNTYHNLKKTCLLE-----SSEHPSKCTKAMEAADLEQ
Os03g26930 DNVTL-----RASFDYVWSHGLISDNTYHNLKKTCLLE-----SSEHPSKCTKAMEAADLEQ
Os03g09190 FAAEQ-----TQVLEFVWSHGLISDNTYHNLKKTCLLE-----SSEHPSKCTKAMEAADLEQ
At3g52000 REQCD-----DFGKYFVWSHGLISDNTYHNLKKTCLLE-----SSEHPSKCTKAMEAADLEQ
At3g52010 TSQCD-----FYGVFVWSHGLISDNTYHNLKKTCLLE-----SSEHPSKCTKAMEAADLEQ
At2g05850 LLEEA-----DNNKFIWSHGLISDNTYHNLKKTCLLE-----SSEHPSKCTKAMEAADLEQ
At3g52020 DIWET-----TQVLEFVWSHGLISDNTYHNLKKTCLLE-----SSEHPSKCTKAMEAADLEQ
At3g63470 DEBDL-----MGMDYFVWSHGLISDNTYHNLKKTCLLE-----SSEHPSKCTKAMEAADLEQ
At1g28110 FADFD-----NSRAEYFVWSHGLISDNTYHNLKKTCLLE-----SSEHPSKCTKAMEAADLEQ
At2g33530 FADFD-----NSRAEYFVWSHGLISDNTYHNLKKTCLLE-----SSEHPSKCTKAMEAADLEQ
Os04g32540 FADFD-----NSRAEYFVWSHGLISDNTYHNLKKTCLLE-----SSEHPSKCTKAMEAADLEQ
Os11g31980 FTDFF-----NSRAEYFVWSHGLISDNTYHNLKKTCLLE-----SSEHPSKCTKAMEAADLEQ
At2g12480 LDRDF-----AAAEYFVWSHGLISDNTYHNLKKTCLLE-----SSEHPSKCTKAMEAADLEQ
At5g42240 LDRDS-----PATYEFFVWSHGLISDNTYHNLKKTCLLE-----SSEHPSKCTKAMEAADLEQ
At5g42230 LDRDI-----PAVYEFFVWSHGLISDNTYHNLKKTCLLE-----SSEHPSKCTKAMEAADLEQ
At1g43780 LDRDV-----PATYEFFVWSHGLISDNTYHNLKKTCLLE-----SSEHPSKCTKAMEAADLEQ
Os11g10750 LDRDV-----PATYEFFVWSHGLISDNTYHNLKKTCLLE-----SSEHPSKCTKAMEAADLEQ
At1g73300 YADDS-----NSRIFFAHGMALISDELVESLKRCKGKYENVHPR-----NTECLKLVVEEFNKCT
At5g36180 YTGGS-----NSRIFFAHGMALISDELVESLKRCKGKYENVHPR-----NTECLKLVVEEFNKCT
At1g73280 FVVDY-----NSRIFFAHGMALISDELVESLKRCKGKYENVHPR-----NTECLKLVVEEFNKCT
At1g73310 CVVDC-----NYRVFFAHGMALISDELVESLKRCKGKYENVHPR-----NTECLKLVVEEFNKCT
At1g73290 HADYD-----NYRVFFAHGMALISDELVESLKRCKGKYENVHPR-----NTECLKLVVEEFNKCT
At1g73270 SKIDG-----NSQIPYAHGMALISDELVESLKRCKGKYENVHPR-----NTECLKLVVEEFNKCT
At3g10450 NEVDI-----NYRIFFAHGMALISDELVESLKRCKGKYENVHPR-----NTECLKLVVEEFNKCT
At2g22920 FEVDQ-----NYRIFFAHGMALISDELVESLKRCKGKYENVHPR-----NTECLKLVVEEFNKCT
At2g22970 EDDFN-----YRIPIFFAHGMALISDELVESLKRCKGKYENVHPR-----NTECLKLVVEEFNKCT
At2g23000 AEHEK-----NYRIPIFFAHGMALISDELVESLKRCKGKYENVHPR-----NTECLKLVVEEFNKCT
At2g23010 IEFEQ-----NFRIPYAHGMALISDELVESLKRCKGKYENVHPR-----NTECLKLVVEEFNKCT
At2g22990 MDEFQ-----NFRIPYAHGMALISDELVESLKRCKGKYENVHPR-----NTECLKLVVEEFNKCT
At2g22980 TESFQ-----NYQIPYAHGMALISDELVESLKRCKGKYENVHPR-----NTECLKLVVEEFNKCT
At3g12230 YDHDK-----DSRIFFAHGMALISDELVESLKRCKGKYENVHPR-----NTECLKLVVEEFNKCT
At3g12240 YDHDK-----DFRIFFAHGMALISDELVESLKRCKGKYENVHPR-----NTECLKLVVEEFNKCT
At3g12220 YDLDL-----NSRIFFAHGMALISDELVESLKRCKGKYENVHPR-----NTECLKLVVEEFNKCT
At3g12203 TDIDL-----NSRIFFAHGMALISDELVESLKRCKGKYENVHPR-----NTECLKLVVEEFNKCT
At1g33540 LDSDH-----NSKIPYAHGMALISDELVESLKRCKGKYENVHPR-----NTECLKLVVEEFNKCT
At5g09640 KNIEB-----NYRVFFAHGMALISDELVESLKRCKGKYENVHPR-----NTECLKLVVEEFNKCT
Os10g01110 HNFDA-----PSKIPYAHGMALISDELVESLKRCKGKYENVHPR-----NTECLKLVVEEFNKCT
Os11g42390 PNFDT-----PSKIPYAHGMALISDELVESLKRCKGKYENVHPR-----NTECLKLVVEEFNKCT
Os04g09720 TTHDD-----NSKIPYAHGMALISDELVESLKRCKGKYENVHPR-----NTECLKLVVEEFNKCT
Os02g46260 DKIDV-----NSRVPPYAHGMALISDELVESLKRCKGKYENVHPR-----NTECLKLVVEEFNKCT
Os03g52080 PKYDR-----NSIIPYAHGMALISDELVESLKRCKGKYENVHPR-----NTECLKLVVEEFNKCT
Os11g24510 ESIDY-----ESKVPYAHGMALISDELVESLKRCKGKYENVHPR-----NTECLKLVVEEFNKCT
Os12g39170 ESIDY-----DSRVPPYAHGMALISDELVESLKRCKGKYENVHPR-----NTECLKLVVEEFNKCT
Os10g01130 VKVDS-----GGKVPYAHGMALISDELVESLKRCKGKYENVHPR-----NTECLKLVVEEFNKCT
Os11g27200 SQDFE-----DGKIPYAHGMALISDELVESLKRCKGKYENVHPR-----NTECLKLVVEEFNKCT
Os02g26480 VELEN-----NAFVPPYAHGMALISDELVESLKRCKGKYENVHPR-----NTECLKLVVEEFNKCT
At3g25420 EVDPD-----NALVPPYAHGMALISDELVESLKRCKGKYENVHPR-----NTECLKLVVEEFNKCT
At4g12910 PKPDG-----NAFVPPYAHGMALISDELVESLKRCKGKYENVHPR-----NTECLKLVVEEFNKCT
Os04g25560 QDQDF-----NSFVPPYAHGMALISDELVESLKRCKGKYENVHPR-----NTECLKLVVEEFNKCT
Os12g15470 TVDFG-----NALVPPYAHGMALISDELVESLKRCKGKYENVHPR-----NTECLKLVVEEFNKCT
Os02g02320 PAIQY-----KAYDYALDMNLTKSDYDRINKFIPCEFAIKLCGTNGK-----ASCMAAYMVC
Os07g29620 PAIQY-----KAYDYALDMNLTKSDYDRINKFIPCEFAIKLCGTNGK-----ASCMAAYMVC
At3g10410 PAIQY-----PAYPDYALEMGLITQKHDRLEKIVPLCELISIKLCGTNGK-----TSCLASYLVC
At3g45010 PETQY-----GAYADYALDMNLTKSDYDRINKFIPCEFAIKLCGTNGK-----ASCMAAYMVC
At5g22980 PETQY-----GAYADYALDMNLTKSDYDRINKFIPCEFAIKLCGTNGK-----ASCMAAYMVC
Os03g27480 PEDFA-----LSYGPLLQVSRILDSNGADSKAKQVVKQRIASQWKLQAYALSSMLTSIV
Os08g44440 PEDSV-----LSWGPLLQVSRILDSNGADSKAKQVVKQRIASQWKLQAYALSSMLTSIV
At2g27920 PEDFV-----FSWGPLLQVSRILDSNGADSKAKQVVKQRIASQWKLQAYALSSMLTSIV
Os03g27510 PADFS-----LTYARMLSDVSWLDGNAIDDDVNMAGKVBEQTAAGQFATSLQTFGLDYLID
Os03g27530 PTDFS-----LTYARMLSDVSWLDGNAIDDDVNMAGKVBEQTAAGQFATSLQTFGLDYLID

Os01g11670 NATGLATQFDAAKQR-----
Os05g50600 NATGLATLFDAAKRR-----
Os06g36570 NATGLATLFDAAKQR-----
Os05g50570 NASGVPSLFDVEVTTSL-----
Os05g50580 NATGVVTLLEDVEVQQSV-----
Os01g43890 NATGVATFPNYAREK-----
At1g15000 NMTGLATLYNTARATP-----
At1g11080 HEIDIYSIYTSVCIQDSARSSYPDS-----
At4g15100 NEIDIYSLYTSACKQDSAKSSYPAS-----
At1g61130 KEIDQFSLYTPICMHSS-----
Os01g22980 DMIDIFNVYAPKCNDDSSLSFSTS-----
Os05g06660 NQIDIXNIYAPKCLLNSTASSPD-----
At3g17180 KEIDIYNIYAPKCISSNSSGASYLG-----
At5g08260 NDIDIYSIYTPVCLSSLLSS-----SPRK--PKI
Os04g44410 DDIDIYSIYTPCLSSSSSSPASA-----SPRRSSPGL
At5g23210 KILDMYSLYAPKCVPTSTNSSTSHSVAENRRLPAFRS-----
Os02g42310 RLIDMYSLYTPVCTEVSSSAAFQO-----RQVAVH
Os10g39560 SIIDIYSLYTPRCLEL-----
Os06g51370 QDIDIYSLYTPFSTCAALNGTTTTTN-----
At2g24000 QDIDQYSIYTPKCVFPQDQTNQTK-----
At2g24010 GKVNQYSIYSPSCVQHTMQT-----
At4g30610 QDIDQYSIYTPCTVAAQKKNTTG-----
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At3g02110 GNIDQYNIYAPCNKSSDGGGSGYSSGR-----
At3g07990 GNIDFYSIYTKPCNSTVALKRLFKG-----
Os01g61690 GNIDFYSLYTKPCNNTASLKLGLG-----
At2g35780 GNIDFYSIYTVTKKEAAALRSRFSRV-----
Os01g06490 GNIDAYSITPTCKKTSFPLKRRILRG-----
At4g30810 GNIDQYSVFPPACVANASQS-NMLLKKR-----
Os06g08720 GNIDSVSITPTCHASPASSRNKVMKRL-----
At2g35770 QDIDFYINSPACTTHASSNEWMQAWR-----
Os09g28830 GNIDFYDIYGPVCINAPDGGK-----
Os09g28840 VNIDRYNIYAPVCLHEQDGT-----
Os07g46350 QDIDIYNIYAPNCQSPGLVV-----
Os03g26920 QVIDFYNIYAPLCWNASNFR-----
Os03g26930 QNVDDYNIYAPQCHDASNFS-----
Os03g09190 GNIDIYNIYSSTCHEQKVR-----
At3g52000 THLDIYNIYAPLCNLSTLS-----
At3g52010 KHLDTYNIYAPVCLNSTLS-----
At2g05850 KHLDVYNIYAPVCLNSTLS-----
At3g52020 KKMNLXNLITPTCINATLTPL-----
At3g63470 YYLDIYNIYAPLCNLSTLT-----
At1g28110 ETSRFVDKXDVTLDVCIPLSVLSQSKV-----
At2g33530 ETSRFIDKXDVTLDVCIPLSVLSQSKV-----
Os04g32540 ETSRFVDKXDVTLDVCVSSVLMQSKS-----
Os11g31980 ETSRFVDKXDVTLDVCLSSVLSQSKI-----
At2g12480 VLEHYINSYHILLDVCYPSIVQQLR-----
At5g42240 IITEYVNNYDVLLDVCYPSIVQQLR-----
At5g42230 IITEYVNNYDVLDPDLCYPSIALQELR-----
At1g43780 IITEYVNNYDILLDVCYPSLFEQELR-----
Os11g10750 IVGDYVNNYDVLLDVCYPSIVMQELR-----
At1g73300 NRILQQLILDPLCETET-----
At5g36180 NRIFQQLILDPLCETET-----
At1g73280 NSICQRRILDPFCETET-----
At1g73310 NRVCCERHILHSCCETET-----
At1g73290 KQVCQEVVVKPLCVTET-----
At1g73270 SKLYRSHILYPLCEMTN-----
At3g10450 KRINKALITPPECVDTIS-----
At2g22920 DELNEFNILSPDCDITS-----
At2g22970 DKLNEFNILSPDCDITAS-----
At2g23000 DKINTQHILIPDCDKKHGHTS-----
At2g23010 DNINSHHILIANCDSDNTQHIS-----
At2g22990 AKINIHILITPDCDVTN-VTS-----
At2g22980 HKLNKYHILLPDCDITS-----
At3g12230 SGIYQELILKPKCETTSF-----DCY
At3g12240 SGIYEELILKSKCEHTSF-----DCY
At3g12220 SGIYENLILVPKCDLTSF-----DCH
At3g12203 SGISEYILKPKDCMWLY-----SCM
At1g33540 SRINEGLILIALCDLASPNFYSQ-----EHGGRSYL-----
At5g09640 SEIYSEHILRNCKVDVVLADTPNIRTDRRRVMK-----
Os10g01110 KDIYQNHILEPYCTFASPHNPRIDKPFSTG-----
Os11g42390 KDIYQNHILEPYCTILASPHNPRIDKPFSTGGQRMQLQ-----
Os04g09720 RDVNDLHILEPRCEEDGISLMSDNASSHDR-----
Os02g46260 SEVLEPACPFDWFWMPQRDASN-----RKSLTEEHW-----
Os03g52080 SELDNGDILLDKCAGRLIPKPINGVSSRALLEEYSR-----
Os11g24510 GEVSEAHILYKKCIYVSPKDDGTIGRKILLEEIVG-----
Os12g39170 GESSGCHILYNYCIYDSIDIG-----SIQEK-----
Os10g01130 FAIPNVHILEPICGALRGAMPETTMQRLRLGLP-----
Os11g27200 KDINMLHVLEPLCEEVWSPRIHNTSATDMSRLMESARAADDIIIEFN-----
Os02g26480 SGINMEHILCPPRCYMQG-----
At3g25420 NLLNLNILEPCHVHTSLSALDIEF--LPKSLTLGKTEKPMAYRKRMFGRAWPLGAVVRPGIIVPSWSQLLAGFC--VP
At4g12910 NQNLNINILEPCHVHTSLSAFDIRS--LPSSLLQLGKTEKRLPIRKRMFGRAWPVRAVPHGPIIVPSWSQLLADV--VP
Os04g25560 KDLNKYNILAPCVHHPPEIQELEFKNSLSPSFRLGETEKRFPPVRKRMAGRSWPLRAPVTRGRMTMWPELQGRS--LP
Os12g15470 NDLNLIDILEPCHVHTSKTIKKVTIPANTKLPKSFQHLGTTIKPLAVRTKMHGRAWPLRAPVRAGRVPSWQEFARSRPFGVP
Os02g02320 NSIFSSIMKLVGKKNYDVR-----K
Os07g29620 NLIFSSIEIIGKKNNYYDIR-----K
At3g10410 NSLFSGVMSHAGGVNYYDIR-----K
At3g45010 NNIFQKIMDIAGNVNYYDVR-----K
At5g22980 TSI FNKIVAKKSLGNYYDIR-----K
Os03g27480 ASSGHVDVYNFLDGTGMDPVAAQ-----AAPARS-----
Os08g44640 EQANFIDFYNFLKDDSSSDANLQQQQRORLLASLGQ-----
At2g27920 SKSNFVDFYNFLDGTGMDPVSLTSLKIKKEEIKK-----
Os03g27510 SKSDSVVKHVQLHWHRRHGHDANNR-QHTGSCSSF-----
Os03g27530 KSSGGVNIYNFLNFTSGVDLRVLAEDQKEVVRGSP-----
Os01g22970 LGPKGHKLSKKEKFFVVGSI PCPMSFIAQEQWSEKPYEENLQVYTSIIR-----

Os01g11670 PYETGPVGVKRVRAEVKAALGARTD-----VEWEDCSDTVGAAMHGDVMSVKPKVEALLRG-----
Os05g50600 PYETGPVGVKRVRAEVKAALGARGD-----VEWEECSDAVGAAMHGDVMSVKPKVEALLRG-----
Os06g36570 PYETGPVGVKRVRAEVKAALGARGD-----MEWEECSDAVGAAMHGDVMSVKPKVEALLRG-----
Os05g50570 EAEAAALAPLLGAEAKAALGARGD-----AEWKMSAAVGAAGHKDVMSVKPKVEALLRR-----GTT
Os05g50580 AVMAAGLADFLSTAEEVKAALGARGD-----VAWEACSAAVGAAGQEDVMSAKRDVEALLHRRGASPTAPP
Os01g43890 GYPTPLRLDFLNTGAEAKAALGARGD-----VEWARCSAAVGAALADDIMRSARGDVEAVFLAPDG-----
At1g15000 YRTDLVVDLLNQREAKRVLGVSSET-----VRFEECSEDEVDLRLADVMSVKFMVEYALER-----
At1g11080 PCLDDYARVVFYLRADVQKSLHASDGG-V-NLKNWISICNMEIFNNWTTGS-NPFLVLPPIYKELIA-GG-----
At4g15100 PCLDDYVVKVYVYLRADVQKSLHASDGG-V-NLKNWISICNMEIFNNWTTV-VQSVLPPIYKELIA-GG-----
At1g61130 PCLDDYAKVVFYLRADVQKSLHASDGG-V-HLKNWITICNDILNHNWNTVSKRSVLPPIYKELIA-GG-----
Os01g22980 PCYSSHIEDYMMKMDVQKSLHANTSGLI-----KDRKWSICSYISFDNVDIT-VFVLPPIYKELIA-GG-----
Os05g06660 PCYSSYAEVDFMKHDVQAEFANASGLL-----PG-KWQVCSQDILNSWNFS-VLSILPPIYKELIA-GG-----
At3g17180 PCYSNYAEVDFNRVDVRLSLHATTR-----NVARWKCNDLSILQTYHFT-VSSMLPPIYKELIA-GG-----
At5g08260 PCTESYAEVDFNRKDVQVQALHANVTN-----LPYPYSPSCGVIK-RWSDA-PSTMIPIYKELIA-GG-----
Os04g44410 PCTEEVYKGYFNRREDVQALHANVTG-----LSYPYSPSCGAIS-KWSDS-PSTVLPPIYKELIA-GG-----
At5g23210 PCASEYTEKVMRKDVQAEALHANVTN-----ISYPWTHCSDTVG-FWSDA-PASMLPPIYKELIA-GG-----
Os02g42310 PCTSDHAEVDFNRKDVQKSLHANVTN-----IGYNWTHCSDTVIG-KWRDA-PFTLPPIYKELIA-GG-----
Os01g39560 PCSQTYATEVDFNRKDVQKSLHANVTN-----GAYSLCHNSINRAWDS-DMTVLPPIYKELIA-GG-----
Os06g51370 PCVDYRVDFLNRKDVQKSLHANVTN-----IPYSWAPCSDALTNWTDAB-PSTLEDIAALVR-AG-----
At2g24000 PCTENYAEVDFNRKDVQKSLHANVTN-----PYKWTACSDVFNWNNRSDNMLPPIYKELIA-GG-----
At2g24010 PCTESYAEVDFNRKDVQKSLHANVTN-----PYKWTLCNMVNNR-NWKDSEFMLPPIYKELIA-GG-----
At4g30610 PCTESYAEVDFNRKDVQKSLHANVTN-----RYKWTACSDVLIK-NWKDSDKMLPPIYKELIA-GG-----
At4g30610 PCTESYAEVDFNRKDVQKSLHANVTN-----PYRWTACSDVLIK-NWRDSEFMLPPIYKELIA-GG-----
Os02g55130 PCTERVAEYDFNRKDVQKSLHANVTN-----PYKWTACSDVLIK-NWDDSDVLPPIYKELIA-GG-----
At3g02110 PCTERVAEYDFNRKDVQKSLHANVTN-----PYKWTACSDVLIK-NWDDSDVLPPIYKELIA-GG-----
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Os01g61690 PCTERYSSYDFNRKDVQKSLHANVTN-----QYSWKTCSDIVGS-YWDDSPMLPPIYKELIA-GG-----
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Os01g06490 PCTEKYSTYDFNRKDVQKSLHANVTN-----PYAWTTCSDVLFY-YWDDSPMLPPIYKELIA-GG-----
At4g30810 PCTEKHTYDFNRKDVQKSLHANVTN-----PSKWDTCSDVIGS-YWDDSPMLPPIYKELIA-GG-----
Os06g08720 PCTEKHSTYDFNRKDVQKSLHANVTN-----KSKWETCSDVVNT-NWKDCERVLHPIYKELIA-GG-----
At2g35770 ECVVGYTRKVMRKDVQKSLHANVTN-----STPWTCSRVRIR-NWKDCERVLHPIYKELIA-GG-----
Os09g28830 PCSNYIYHAYLNRKDVQKSLHANVTN-----VIT-WLGGKKSVMKRRKIYISAKMQACGVYSNRT-V-----
Os09g28840 PCIDYIYHAYLNRKDVQKSLHANVTN-----ADTNWSGCN-----
Os07g46350 PCTDYVYAYLNRKDVQKSLHANVTN-----LDHPWNSACSG-VLRRWVDSASTVLPPIYKELIA-GG-----
Os03g26920 PCSRYVYAYLNRKDVQKSLHANVTN-----LKQPSWNSACSG-VLRRWVDSASTVLPPIYKELIA-GG-----
Os03g26930 PCTNHVYAYLNRKDVQKSLHANVTN-----LKNPWSWNSACSG-VLRRWVDSASTVLPPIYKELIA-GG-----
Os03g09190 PCSQYFVAYLNRKDVQKSLHANVTN-----LKYPTWTRC-VVNLDFHFGSPKSMPLPIYKELIA-GG-----
At2g52000 PCSGNYLKYALNRKDVQKSLHANVTN-----IPYEWTSNTKLLWEWNEKDRYVLPPIYKELIA-GG-----
At3g52010 PCSKDYLKYALNRKDVQKSLHANVTN-----LPYEWTSNNELTENWSENDRDTPMPLPIYKELIA-GG-----
At2g52010 PCSGNYLKYALNRKDVQKSLHANVTN-----LPYEWTSNNELTENWSENDRDTPMPLPIYKELIA-GG-----
At3g52020 PCSGNYLKYALNRKDVQKSLHANVTN-----LPYEWTSNNELTENWSENDRDTPMPLPIYKELIA-GG-----
At3g63470 PCSGNYLKYALNRKDVQKSLHANVTN-----LPYEWTSNNELTENWSENDRDTPMPLPIYKELIA-GG-----
At1g28110 VCVEDETVNKLNRKDVQKSLHANVTN-----VREWTVCSNVLDYQLLDVEPTINIVGSLVKAG-----
At2g33530 VCLEDETVNKLNRKDVQKSLHANVTN-----VRKWTVCSDVLDYQLLDVEPTINIVGSLVKAG-----
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Os01g31980 VCVEDETVNKLNRKDVQKSLHANVTN-----VKNWAVCSSVLEYLELLNLQPTINIVGSLVKAG-----
At2g12480 VCMYTERYFYFLNRKDVQKSLHANVTN-----PYEWTMCSNRLNYSIDGIDYDMLPPIYKELIA-GG-----
At5g42240 VCMYTERYFYFLNRKDVQKSLHANVTN-----PYSWMSCSNVLDYQLLDVEPTINIVGSLVKAG-----
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At1g73300 IYRYLLTTTWWANDETVRRALKVQKKE-----SIGEWVRGCH--RTIPYNDIK--SVFYHNNNSISG-----
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At4g12910 LFLTLIKGAGHTVPEYKPRESLDFYSRFLAG
Os04g25560 LFLTLIKGAGHTVPEYKPRESLDFYSRFLAG
Os12g15470 LTFATIKGAGHTVPEYKPRESLDFYSRFLAG
Os02g02320 LSLKVNAGHMVPMQDPKASLEMLRRFTQG
Os07g29620 LSLKVNAGHMVPMQDPKASLEMLRRFTQG
At3g10410 LSLKVNAGHMVPMQDPKASLEMLRRFTQG
At3g45010 LTLKVNAGHMVPMQDPKASLEMLRRFTQG
At5g22980 LTLKVNAGHMVPMQDPKASLEMLRRFTQG
Os03g27480 LHFYVILGAGHFVPPDQPCIALDMIGSITQS
Os08g44640 LKFYVILGAGHMVPPIDNCPALKMIGSITQS
At2g27920 LHFYVILGAGHFVPPDQPCIALKMIGSITQS
Os03g27510 LQHYSLQAGQAVPVDQPCITVLHMIGAIMQS
Os03g27530 TWILEAGHVLAT-----

b)

