

10 20 30 40 50 60 70 80 90 100 110 120 130
Os_PAM1 MDRLLVPEPTNEVVRVPEGRPARGELTLRNRAMHTMPVAFRLQPAVRSRFAVRPHTGLLAPLAAVTVVVYLASEGPPGGGGGAGRGEDAFLHLSVVAPGAAVREPVTALDSVNPEWFSARRKQVFDVDSGIRACF
Zm_PAM1 MDRLLVPEPTNEVVRVPEGRQARGELTLRNRAMHTMPVAFRLQPAVRSRFAVRPHTGLLAPLAAVTVVVYLASEGPPGGGGGAGRGEDAFLHLSVVAPGAAVKEPVTALDSVNPEWFSARRKQVFDVDSGIRACF
Sb_PAM1 MDRLLVPEPTNEVVRVPEGRQARGELTLRNRAMHTMPVAFRLQPAVRSRFAVRPHTGLLAPLAAVTVVVYLASEGPPGGGGGAGRGEDAFLHLSVVAPGAAVKEPVTALDSVNPEWFSARRKQVFDVDSGIRACF
Ph_PAM1 MDRLLSLEPSNVVTRLEPQKCSGLTLRNVMTMPVAFRLQPLNKRIRPQSGIISPLTTITLIEIYHLPNPTLPSTPFDSDHFLHLSVVAPGAANNKATSLDMVPIDWFTTKKQVFDVDSGIRACF
Sl_PAM1 MDRLLSLEPSNVVTRLEPQKCSGLTLRNVMTMPVAFRLQPLNKRIRPQSGIISPLTTITLIEIYHLPNPTLPSTPFDSDHFLHLSVVAPGAANNKATSLDMVPIDWFTTKKQVFDVDSGIRACF
St_PAM1 MDRLLSLEPSNVVTRLEPQKCSGLTLRNVMTMPVAFRLQPLNKRIRPQSGIISPLTTITLIEIYHLPNPTLPSTPFDSDHFLHLSVVAPGAANNKATSLDMVPIDWFTTKKQVFDVDSGIRACF
Vv_PAM1 MDRLLSLEPSNVVTRLEPQKCSGLTLRNVMTMPVAFRLQPLNKRIRPQSGIISPLTTITLIEIYHLPNPTLPSTPFDSDHFLHLSVVAPGAANNKATSLDMVPIDWFTTKKQVFDVDSGIRACF
Pt_PAM1 MDRLLSLEPSNVVTRLEPQKCSGLTLRNVMTMPVAFRLQPLNKRIRPQSGIISPLTTITLIEIYHLPNPTLPSTPFDSDHFLHLSVVAPGAANNKATSLDMVPIDWFTTKKQVFDVDSGIRACF
Rc_PAM1 MDRLLSLEPSNVVTRLEPQKCSGLTLRNVMTMPVAFRLQPLNKRIRPQSGIISPLTTITLIEIYHLPNPTLPSTPFDSDHFLHLSVVAPGAANNKATSLDMVPIDWFTTKKQVFDVDSGIRACF
Gm_PAM1 MDRLLSLEPSNVVTRLEPQKCSGLTLRNVMTMPVAFRLQPLNKRIRPQSGIISPLTTITLIEIYHLPNPTLPSTPFDSDHFLHLSVVAPGAANNKATSLDMVPIDWFTTKKQVFDVDSGIRACF
Mt_Vpy MDRLLSLEPSNVVTRLEPQKCSGLTLRNVMTMPVAFRLQPLNKRIRPQSGIISPLTTITLIEIYHLPNPTLPSTPFDSDHFLHLSVVAPGAANNKATSLDMVPIDWFTTKKQVFDVDSGIRACF
Pp_PAM1 MDRLLSLEPSNVVTRLEPQKCSGLTLRNVMTMPVAFRLQPLNKRIRPQSGIISPLTTITLIEIYHLPNPTLPSTPFDSDHFLHLSVVAPGAANNKATSLDMVPIDWFTTKKQVFDVDSGIRACF

REPEAT 1 REPEAT 2 REPEAT 3 REPEAT 4
140 150 160 170 180 190 200 210 220 230 240 250 260 270
Os_PAM1 VGSAAARLVEAGVAEALREVLDSEPEWRAADAVDE-SGRTLLDLAVGLGRADIVQVLEYGADADKPSR--GRTPLETAAASGCLIAELLANGATPA----GSDALHVAAGAHNDVLLKLLGKPPASAPSSASSASFCSFTSIDAAGR
Zm_PAM1 VGSAAARLVEAGVAEALREVLDSEPEWRAADAVDE-SGRTLLDLAVGLGRADIVQVLEYGADADKPSR--GRTPLETAAASGCLIAELLANGATPA----GSDAIHVAAGAHNDVLLKLLGKPPASAPSSASSASFSSFTSIDAAGR
Sb_PAM1 VGSAAARLVEAGVAEALREVLDSEPEWRAADAVDE-SGRTLLDLAVGLGRADIVQVLEYGADADKPSR--GRTPLETAAASGCLIAELLANGATPA----GSDAIHVAAGAHNDVLLKLLGKPPASAPSSASSASFSSFTSIDAAGR
Ph_PAM1 VGSPLVLCYLRKGYMDEIRVLEKSDYCNKPVDSVDF-EQOTLLHLAISQSRADIVOLLEFPGNIEAHSR-SCSSPLEEAASGALIVLELLAKKAKTERTEY-SASGPIHLAAGNGHLEVRLLKLLKGAN-----VNSLTK
Sl_PAM1 IGSPLVLCYLRKGYMDEIRVLEKSDYCNKPVDSVDF-EQOTLLHLAISQSRADIVOLLEFPGNIEAHSR-SCSSPLEEAASGALIVLELLAKKAKTERTEY-SASGPIHLAAGNGHLEVRLLKLLKGAN-----VNSLTK
St_PAM1 IGSPLVLCYLRKGYMDEIRVLEKSDYCNKPVDSVDF-EQOTLLHLAISQSRADIVOLLEFPGNIEAHSR-SCSSPLEEAASGALIVLELLAKKAKTERTEY-SASGPIHLAAGNGHLEVRLLKLLKGAN-----VNSLTK
Vv_PAM1 IGSPLVLCYLRKGYMDEIRVLEKSDYCNKPVDSVDF-EQOTLLHLAISQSRADIVOLLEFPGNIEAHSR-SCSSPLEEAASGALIVLELLAKKAKTERTEY-SASGPIHLAAGNGHLEVRLLKLLKGAN-----VNSLTK
Pt_PAM1 VGSPLVLCYLRKGYMDEIRVLEKSDYCNKPVDSVDF-EQOTLLHLAISQSRADIVOLLEFPGNIEAHSR-SCSSPLEEAASGALIVLELLAKKAKTERTEY-SASGPIHLAAGNGHLEVRLLKLLKGAN-----VNSLTK
Rc_PAM1 VGSPLVLCYLRKGYMDEIRVLEKSDYCNKPVDSVDF-EQOTLLHLAISQSRADIVOLLEFPGNIEAHSR-SCSSPLEEAASGALIVLELLAKKAKTERTEY-SASGPIHLAAGNGHLEVRLLKLLKGAN-----VNSLTK
Gm_PAM1 VGSPLVLCYLRKGYMDEIRVLEKSDYCNKPVDSVDF-EQOTLLHLAISQSRADIVOLLEFPGNIEAHSR-SCSSPLEEAASGALIVLELLAKKAKTERTEY-SASGPIHLAAGNGHLEVRLLKLLKGAN-----VNSLTK
Mt_Vpy VGSPLVLCYLRKGYMDEIRVLEKSDYCNKPVDSVDF-EQOTLLHLAISQSRADIVOLLEFPGNIEAHSR-SCSSPLEEAASGALIVLELLAKKAKTERTEY-SASGPIHLAAGNGHLEVRLLKLLKGAN-----VNSLTK
Pp_PAM1 VGSPLVLCYLRKGYMDEIRVLEKSDYCNKPVDSVDF-EQOTLLHLAISQSRADIVOLLEFPGNIEAHSR-SCSSPLEEAASGALIVLELLAKKAKTERTEY-SASGPIHLAAGNGHLEVRLLKLLKGAN-----VNSLTK

REPEAT 5 REPEAT 6 REPEAT 7 REPEAT 8
280 290 300 310 320 330 340 350 360 370 380 390
Os_PAM1 DGKTPRLRAAEAGRRDAVKALLAAGARADARCGA-DGGTALHAAARRGDEVIARLILANGGTAARVDA-AGKTAPEIAEAECHGGIMDFLGLGEA-ILAAARKGEARAVRRAADGGASVEGRDA
Zm_PAM1 DGKTPRLRAAEAGRRDAVKALLAAGARADARCGA-DGGTALHAAARRGDEAVARLLSHGGTASVRDV-AGKTAPEIAEAECHGGIMDFLGLGEA-ILAAARKGEARAVRRAADGGASVEGRDA
Sb_PAM1 DGKTPRLRAAEAGRRDAVKALLAAGARADARCGT-DGGTALHAAARRGDEAVARLLSHGGTASVRDV-AGKTAPEIAEAECHGGIMDFLGLGEA-ILAAARKGEARAVRRAADGGASVEGRDA
Ph_PAM1 DGSTALHLAVEERRRDCARLLANGARADARCGA-DGGTALHAAARRGDEAVARLLSHGGTASVRDV-AGKTAPEIAEAECHGGIMDFLGLGEA-ILAAARKGEARAVRRAADGGASVEGRDA
Sl_PAM1 DGNTALHIAVEEGRRDCVRVLLANGARADARNEG-NCDTPLHIAAAGLGDHVMVRLVQKGAENKRNK-YGRTAYDVAABHGHNKLPDARLGDG-LCVAARKGEVRTIQRLLENGAINGRDO
St_PAM1 DGNTALHIAVEEGRRDCVRVLLANGARADARNEG-NCDTPLHIAAAGLGDHVMVRLVQKGAENKRNK-YGRTAYDVAABHGHNKLPDARLGDG-LCVAARKGEVRTIQRLLENGAINGRDO
Vv_PAM1 DGNTALHIAVEEGRRDCVRVLLANGARADARNEG-NCDTPLHIAAAGLGDHVMVRLVQKGAENKRNK-YGRTAYDVAABHGHNKLPDARLGDG-LCVAARKGEVRTIQRLLENGAINGRDO
Pt_PAM1 DGNTALHIAVEEGRRDCVRVLLANGARADARNEG-NCDTPLHIAAAGLGDHVMVRLVQKGAENKRNK-YGRTAYDVAABHGHNKLPDARLGDG-LCVAARKGEVRTIQRLLENGAINGRDO
Rc_PAM1 DGNTALHIAVEEGRRDCVRVLLANGARADARNEG-NCDTPLHIAAAGLGDHVMVRLVQKGAENKRNK-YGRTAYDVAABHGHNKLPDARLGDG-LCVAARKGEVRTIQRLLENGAINGRDO
Gm_PAM1 DGNTALHIAVEEGRRDCVRVLLANGARADARNEG-NCDTPLHIAAAGLGDHVMVRLVQKGAENKRNK-YGRTAYDVAABHGHNKLPDARLGDG-LCVAARKGEVRTIQRLLENGAINGRDO
Mt_Vpy DGNTALHIAVEEGRRDCVRVLLANGARADARNEG-NCDTPLHIAAAGLGDHVMVRLVQKGAENKRNK-YGRTAYDVAABHGHNKLPDARLGDG-LCVAARKGEVRTIQRLLENGAINGRDO
Pp_PAM1 DGNTALHIAVEEGRRDCVRVLLANGARADARNEG-NCDTPLHIAAAGLGDHVMVRLVQKGAENKRNK-YGRTAYDVAABHGHNKLPDARLGDG-LCVAARKGEVRTIQRLLENGAINGRDO

REPEAT 9 REPEAT 10 REPEAT 11
400 410 420 430 440 450 460 470 480 490 500 510 520 530
Os_PAM1 HGWTALHRAAFKGRADTVRDLVDRGADMDATDA-EGYALHCAAEAGRADVDLLKSGANAKTTV-KGRSAAEVAAAGKSKVVRLLKAGGVGRKEVA----EKTSPAUVGKAGSLDRRRRGRKSSGAIKRFGGGKGFETAAVVGVWSH
Zm_PAM1 HGWTALHRAAFKGRADTVRDLVDRGADMDAADA-DGYALHCAAEAGRADVDLLKNGANVKAATV-KGRTAADAATAAGKSKVVRLLDKATIMGO DVS-----EKVAPA--VAKGSMRKRARRKSSGAIKRFGGGKGFETAAVVGVWSH
Sb_PAM1 HGWTALHRAAFKGRADTVRDLVDRGADMDAADA-EGYALHCAAEAGRADVDLLKNGANVKAATV-KGRTAADAATAAGKSKVVRLLDKATIMGO DVS-----KVAPA--VAKGSMRKRARRKSSGAIKRFGGGKGFETAAVVGVWSH
Ph_PAM1 HGWTALHRAAFKGRADTVRDLVDRGADMDAADA-EGYALHCAAEAGRADVDLLKNGANVKAATV-KGRTAADAATAAGKSKVVRLLDKATIMGO DVS-----ETNIVKSSGIAVRLDIDGTTIKKRS-VNKS-RTR--RSSFDRN-APLAVL
Sl_PAM1 HGWTALHRAAFKGRADTVRDLVDRGADMDAADA-EGYALHCAAEAGRADVDLLKNGANVKAATV-KGRTAADAATAAGKSKVVRLLDKATIMGO DVS-----KLEMMIAKSYGKMTKEVEIIGSVKRRSHVNKSSRVR--RSSIDRT-T
St_PAM1 HGWTALHRAAFKGRADTVRDLVDRGADMDAADA-EGYALHCAAEAGRADVDLLKNGANVKAATV-KGRTAADAATAAGKSKVVRLLDKATIMGO DVS-----KLEMMIAKSYGKMTKEVEIIGSVKRRSHVNKSSRVR--RSSIDRT-VPL
Vv_PAM1 HGWTALHRAAFKGRADTVRDLVDRGADMDAADA-EGYALHCAAEAGRADVDLLKNGANVKAATV-KGRTAADAATAAGKSKVVRLLDKATIMGO DVS-----KLEMMIAKSYGKMTKEVEIIGSVKRRSHVNKSSRVR--RSSIDRT-VPL
Pt_PAM1 HGWTALHRAAFKGRADTVRDLVDRGADMDAADA-EGYALHCAAEAGRADVDLLKNGANVKAATV-KGRTAADAATAAGKSKVVRLLDKATIMGO DVS-----KLEMMIAKSYGKMTKEVEIIGSVKRRSHVNKSSRVR--RSSIDRT-VPL
Rc_PAM1 HGWTALHRAAFKGRADTVRDLVDRGADMDAADA-EGYALHCAAEAGRADVDLLKNGANVKAATV-KGRTAADAATAAGKSKVVRLLDKATIMGO DVS-----KLEMMIAKSYGKMTKEVEIIGSVKRRSHVNKSSRVR--RSSIDRT-VPL
Gm_PAM1 HGWTALHRAAFKGRADTVRDLVDRGADMDAADA-EGYALHCAAEAGRADVDLLKNGANVKAATV-KGRTAADAATAAGKSKVVRLLDKATIMGO DVS-----KLEMMIAKSYGKMTKEVEIIGSVKRRSHVNKSSRVR--RSSIDRT-VPL
Mt_Vpy HGWTALHRAAFKGRADTVRDLVDRGADMDAADA-EGYALHCAAEAGRADVDLLKNGANVKAATV-KGRTAADAATAAGKSKVVRLLDKATIMGO DVS-----KLEMMIAKSYGKMTKEVEIIGSVKRRSHVNKSSRVR--RSSIDRT-VPL
Pp_PAM1 HGWTALHRAAFKGRADTVRDLVDRGADMDAADA-EGYALHCAAEAGRADVDLLKNGANVKAATV-KGRTAADAATAAGKSKVVRLLDKATIMGO DVS-----KLEMMIAKSYGKMTKEVEIIGSVKRRSHVNKSSRVR--RSSIDRT-VPL