

ZmPifA -----MRERRRKKRLRVASLFVATVMGMIAEYRKRPRHLMDPSEVIERDVAGRKQMLRNLYOGSNVYCYDSLRLTKR
OsPif2 MDRRKQIYLQYYFSSYYQYIWRRLVLAIAICVASYSYLLDMRKRQREGVRYSPMLLRDVE-RDARLNRLFNTEANCVSELRMRKA
OsPif1 -----MNSLIRKSKDEEEDIEIMFWLPALYLLTS-----NGGIEKRVRHTSSQYSEEKLRNILEGHEKNCLVAFRMEPN
AtPif1 -----MEISGEED--KEEAVTLPEKVSKISTSDGNKFVYQILNGPNEQCFENFRMDKP
AtPif2 -----MERNLCEEDSDVDIMLLMVVGSVDAYESQIPRPMRQITKKGHAYIQKALKDDPIHFRQLY-----RMNPE
FnPif1 -----MATILNHKQLKASLSIPYHALRTS-----RYLNRPKKYQLRSRDAVARITSTHEIPDEDFRKRLRVNHT
CbPif1 -----MLLKLKDLLKNNPPNNWKLLEFEFQ-----VV
CePif1 -----MSRRWGLAPTTVANAVYHVTNAIN-----
CePif2 -----MHGLSQPTISRIVCGVIDDLVRVST-----EYI
IS493 -----GLDVSSALRFLSARLREHRRGLGT-----RWRRL
IS470 -----MPTSVTYTAVLDVRRSTAETHLAGLLCDHRIVARTRK-----RRALG
IS112 -----VAGVITAS--EPSWIAFSGLSPRQFGKLVTVLRREGADAVRK-----RPWSL
IS702 -----VKIEKAKQLTARKFKRMSGVSRQTFNYMVDVVKADEKKKKPK-----RRPKL
ISL2 -----MKYETAKNLNTRFKRLIGVAKPVFDEMVKVLAKEYQVKHARG-----RKPPL
IS5 -----MSHQLTFADSEFSSKRRQTRKEIFLSRMEQILPQNMVEVIEPFYPKAGNCR-----RPYPL

ZmPifA SFDLCTILRERCMDCT--LNVSVEEKVAIFLLVVGHG--TKMRMIRSSYGWSLEPISRYFNEVLRGVLSLCHFIKLPDPLAVQ
OsPif2 IEFKLCGHFRSRLVLDV--LHVTVEEQIAMFMHIVGHK--WCNRSVGFEEFRSGEIVSRYFNAVLDLSVLSKELIYIRSTETHP
OsPif1 IFRRAIVTYLRTEHLRDT--RGITVEEKLGHFLYMISHN--ASYEDLOHEFFHSGEITHRHKAIVKFKVIPSITRYFIKQTTREVTH
AtPif1 VRYKLCDLLQTRGLLRHT--NRKIEAQLAIFLFIIGNH--LRTRAVQELFCYSGETISRHFNNVNLNAVIAISKDFQ--PNSNSDT
AtPif2 VEAELCHLLQMKTLGKGT--PHVCVEEMVATFLITVGQN--SRYCHTMDTFKRKSFSTINFKHVLRLALNMLAPTLMAKVNTNVP
FnPif1 EFRKLLCLIKDHPVVFVSHGPRKQANPLLQLTVALYRLGHCGCAASTFEIGEQFGVSEGTSAIWTTRVIKAILSLERNVYWPDENRKP
CbPif1 VRFQYFTSG-----QSAGCIARRIGISKSIVSAIVKRVEVIN--KNYDNIRIPSKPED--
CePif1 SRMKCIETPK-----SAE-----EW-----RKVERTFAK-----KHILR-----
CePif2 KFPPTSDEIET-----MTKKFYEKEDS-----NGEER-----
IS493 SAGRQALLALAHLRNGHP-----YVQLAAGFGVGTTFAYRYVTEAAEVLAALAPTAEAVRAA-----
IS470 CEKQAVLVLRWFLDGT-----LAQLARDNGLSVSTSYRYLHEGLAVLAAGAPDLSTALR-----
IS112 PLEDRALLVAAYWRTNLT-----MRQLAPLFGVSKSAADRIIDHLGP--MLAQ-----PRK-----
IS702 IIEDQVLMVIQYWRERYT-----YHIGLDWGLSESACRTVYKIENLISSRKFSPLPGKELLKM
ISL2 AIEDLLLATLQYLKEYRT-----YEQLAADYGVHDSNLIERSHWAETLVKHGFNIG--KQE-----
IS5 ETMLRIHCMQHWNLSDG-----AMEDALYEIASMR-----LFARLSLDSALPDRITIMNFRHLLLEHQHQLARQLFKTINRWLAE

ZmPifA PEDSK---WRWFEDCLGALDGTIDVFPV-----LADQGRYRNRKQ---QITTNVLGVCDRHMKFVYVLAGWEGSASDS-----
OsPif2 KITSSPGRFHPYFEGCLGALDGTHTVPASVP-----AHMQDRFRGRKK---SPTQNVLAAVDFDLRFIYVLAGWEGSAHDS-----
OsPif1 WKISTDQLFFPYFQNCCLGALDGTHTVPTTIS-----QDLQAPYRNRKQ---TLSONVMLVCDFDLNFIFIPSGWEGSATDA-----
AtPif1 LENDD---PYFKDCVGVVDSFHIPVMVG-----VDEQGPFRNGNG---LLTONVLAASSFDLRFNYVLAGWEGSASDQ-----
AtPif2 SKIKSTTRFYPYFKDCVGAIDGTHINAMVQ-----GPEKASVNRNRKQ---VISONVLAACNFDLEFLYVLAGWEGSAHDS-----
FnPif1 AIDRHFEEDDIPDGCVGIIDGFHVPFAYKPA---RHDADVFSYKQ---RYGFNIGLTCDLHLKRIRYFYQYGPASAHDARIFKNCS
CbPif1 WRDIKETFVRRGLKCLGALDGTGKHVRVKAP-----PNSGSLFNRKQ---FFSFAPGLVLRANLRFVVDIGIPGVSVD-----
CePif1 -----CLGSLDGKHIRIKAP-----PHSGSLFNYKH---FFSVLVVVVDADGRVIWVDVGSVPSNDA-----
CePif2 -----RMPCYGIVDGGKHWRCHEP-----PKSGALNYNYKQ---FFSFNSLVVSDSDYRILFVQMKCNGLNSDAQLYQN--
IS493 -----SMKAFVLLDGTLLPLDRI-----AADRPFVSGKHK---KHGMNVQVIADPSGRLLWASPALPGAVEDV-----
IS470 -----AKAAGPHTLNDGTVIRTRVAAPGP--NGADLRWVSGKHK---HHGGNVQVIATPFGWPIWVSPVRPGRREDTTCAR-----
IS112 -----RFAKDTVLIVDGTLPVTRDH-----TIAERSKNYR---YSTNHQVVIDADTRLVVV--VGRPLAGNRN-----
IS702 P-----SQENLVVMDVTESPIERP-----KSQKKFSGKAG---EHTLKTQLVIHQKTSQIICLGHGKGRIDHDF-----
ISL2 -----IKPDDVVLIDATEVKIQRPK---KDKQLIIPARKS---STVLKAQATDTTGRILHL--DSCQAYRHM-----
IS5 G-----VMMTQGTLDATIIEAPSSTKNKEQQRDPMEHQTKKGNQWHFGMKAHTGVDAKSGLTSHSLVTAANEHDLN-----

ZmPifA -----RV---IRDAMSRL-----DDAFATPS-GKYLLVDAGYTNPG--GFLAPYRSTRYHLNEWAAQGNPNPNAKELFNLRHSTAR
OsPif2 -----HV---IQDALSRL-----PSGLKIPK-GKFFLADAGYAARP--GILPPYRGVRYHLKEYKG--GREPQDYKELYNHRHSSCR
OsPif1 -----RV---IRSAMLR-----GFNVQK-GKYLLVDGGYANTP--SFLAPYRGVRYHLKEFGRGQQRPRNYKELFNHRHAILR
AtPif1 -----QV---LNAALTR-----RNKLQVQK-GKYLLVDNKNVNLN--GFIAPYHGVSTNSREE-----AKEMFNERHKLHL
AtPif2 -----KV---IQDALTRR-----TNRLQVPE-GKYLLADCGFPNRR--NFLAPLRSTRYHLQDFRGEGRDPTNQNELFNLRHASLR
FnPif1 LFEEANADAQS---NREAMLQK---RAVHSEMISQ-GEYLLADSAFPAG--DWCVPLFKRRRGQNDLDR---P---EAKFNKCCSSAR
CbPif1 -----SI---YENSKLKE---ILQKKEPIPK-PIFLTSNYIMPSFV--VDGIFPLDITLLKPYGRPP--LSNDQVLENNIFSCTR
CePif1 -----SI---FSDSKLKT---ILDEEANLPP-PTFWSRDFVVKPFV--IADGIFKITPRMNTLYGGNG--LNISQKVLNKKLSRAR
CePif2 -----GPLPRL---ITKALENVGYRTLPDPNVLN-PPFILADNGFLGHK-SMMQPYRPTQIGLNPE-----ENISENFKLSGTR
IS493 -----RA---AREHGII-----DTLATA-DVNCWADKGVQAGGTVRVPYRG--RWETLSAG-----QQAVNRSHAKIR
IS470 -----HHG---VVEALNR-----IAAEL-DMPTLVDFG-YENAGDGRHPPKPKPAGESELTEE-----QQTYNKVIIRGHI
IS112 -----DCKAWEE-----SGAKAAVG-KTLTADGGYPTG--GLVIPHRRERGAGLDP-----WKEEHNKSHKQVR
IS702 -----RL---FKTSGVK-----FSE-LLKVIADKGVQGIT--KIKHKLSETPIKPKGKK-----LAKEQKYNRELNRLR
ISL2 -----RL---IRRSRRS-----LHR-SGLILADSGYQGLD-KIYFQAKTPVKSSKKKPP-----LTQDQRELNHLISSIR
IS5 -----QLGN---LHGEEQFVSADAGYQAGPQREELAEDVDVLDLIAE--RPGKVRTLKHPRKKNK-----TAINIEMKASIR