File S1

Phosphatase sequences used for the phylogenetic analysis

>AfPphA

MSDLDRAIAQLRACRLIPESEVRELCYKAREILIEEGNVVSVDAPVTICGDIHGQFHDLMELFRVGGDVPDTN
YLFMGDFVDRGFYSLESFLLLLCLKVRYPDRITLIRGNHESRQITTVYGFYDECIRKYGSANVWRYCCEVFDYL
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ADYFL

>PPH3

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SLGAIINNSIFCVHGGLSPDMTTVDEIRTIDRKQEVPHEGAMCDLLWSDPEDVDTWSLSPRGAGFLFGKREV
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>PPG1

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>AfGlcA

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>GLC7

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>AfSitA

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>SIT4

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>AfPpzA

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>PPZ1

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>AfPphB

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>PPH21

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>AfPptA

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>PPT1

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>AfCalA

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>CMP2

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>AfPtcA

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RR


>PTC6

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QSNETKLN


>AfPtcB

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>PTC2

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>AfPpmA

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>PTC7

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>AfPtcD

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>AfPtcE

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>PTC3


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>AfPtcF

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>PTC5

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>AfPtcG

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>PTC1

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>AfPtcH

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>PTC4

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>AfNemA

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>NEM1

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>AfFcpA

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>FCP1

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>AfPsrA

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>PSR1

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>AfPpsA

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>PPS1

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MKYT

>AfDspC

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>YVH1

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NR

>AfDspD

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>MSG5

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>AfCdcA

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>CDC14

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>AfDspA

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>AfPtpB

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>PTP1

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>AfPypA

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MDEGCENP

>PTP3

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>AfLtpA)

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>LTP1

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>AfSsuA

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WTLAWL

>SSU72

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>AfCdcA

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>MIH1

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>AfYphA

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>AfPtyA

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>PTP2

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KDYDIFIFSDSFSRISSCLKTTFCLIEKFKKFICHFFPSPYLKFFLLEGSLNDSKAPSLGKNKKNCILPKLDLNLNVNL
TSRSTLNLRINIPPPNDSNKIFLQSLKKDLIHYSPNSLQKFFQFNMPADLAPNDTILPNWLKFCSVKENEKVILK
KLFNNFETLENFEMQRLEKCLKFKKKPLHQKQLSQKQRGPQSTDDSKLYSLTSLQRQYKSSLKSNIQKNQKLK
LIIPKNNTSSSPSPLSSDDTIMSPINDYELTEGIQSFTKNRYSNILPYEHSRVKLPHSPKPPAVSEASTTETKTDKS
YPMCPVDAKNHSCKPNDYINANYLKLTQINPDFKYIATQAPLPSTMDDFWKVITLNKVKVIISLNSDDELNLR
KWDIYWNNLSYSNHTIKLQNTWENICNINGCVLRVFQVKKTAPQNDNISQDCDLPHNGDLTSITMAVSEP
FIVYQLQYKNWLDSCGVDMNDIIKLHKVKNSLLFNPQSFITSLEKDVCKPDLIDDNNSELHLDTANSSPLLVH
CSAGCGRTGVFVTLDFLLSILSPTTNHSNKIDVWNMTQDLIFIIVNELRKQRISMVQNLTQYIACYEALLNYFA
LQKQIKNALPC

```
>AfPpgA

MPGLPGRFDFVRLVFTLLQEAYHLTASIDLDECIERLYRKELLADTVIEAICAKAKELLMKESNVVHIRAPVTVV
GDIHGQFFDMIEIFKIGGFCPNTNYLFLGDYVDRGLFSVETISLLVCLKLRYPQRVHLIRGNHESRGVTQSYGF
YTECARKYGNANVWHYFTDMFDFLTLSVVINDQIFCVHGGLSPSIHSIDQIKIIDRFREIPHEGPMADLVWSD
PDTERDEFSLSPRGAGYTFGAQVVRKFLEVNSMSHILRAHQLCQEGYQVLYDDRLSTVWSAPNYCYRCGNL
ASVLEVSDTGERYFNIFDAAPENEIHRGEQQAQQNKDGQSPVIDYFL
```

```
>AfDspB

MHFSFAMSSICASLSLPPTHPGLSNTGAALQLWKSASAVFSNPTALLSLTRNFQILDQDGSLNWGNVAFVT
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SSASSIGSELKEHILGLVAISPRASPPTPDEVASYRRLLRIPESIFD MWRYWDRRGGLHSASVNRLVGTDADP
DTRELQMRYNKQSKTPVWRRMAWGTLPTYNKDGKAIGGIPGEEVWAGVKTSVLLVAGESDAVTKPAELR
KLLKFFGEVGPHADVGADGSAIIPDASETHDTVSAAYDRFAHEEEYGLEAQTSEKTIIDDCRASCEKKRAVKT
VILPAPASHALLYDRATYRTLAGIIQDFLSQHIDERLSLGWQLQYMNTSGKWDVKNLAKWKKVTPVSQRIA
GTFVALKMLREVDEEHNPVLFSQKYRDQIYAVIDISYENPVYNPASLEKGGIHYQKHPTVSKIPPTADEVRDFI
ALVDRLQNEISEKMKMSGNPDGPRPVVGVHCHYGFNRTGFLIVSYLIERLGFRVQDAIDEFERQRPPGIRHG
HFIDTLFVRYCVGLKRAPTL
```

```
>SDP1

MNIYTSPTRTPNIAPKSGQRPSLPMLATDERSTDKESPNEDREFVPCSSLDVRRIYPKGPLLVLPEKIYLYSEPK
ELLPFDVVINVAEEANDLRMQVPAVEYHHYRWEHDSQIALDLPSLTSIIHAAT    TKREKILIHCQCGLSRSATL
IIAYIMKYHNLSLRHSYDLLKSRADKINPSIGLIFQLMEWEVALNAKTNVQANSYRKVP
```