

```

S1 .....
S2 MEWLLPHITRINNFCSTLEHGQKSYIHLSRGLPRGDHQKDPQSGVEERSPPSFVRMDENQTKDSGIEHLEDDHHA

S1 .....
S2 KRKEFEDDEIEAEYPPNNNIDFQGQIKRYNEIMKAKSNKFPVSVIVSDRTNSTTSSAPSPTSSITDNSDWYRQGV

S1 .....GDKSFEKSYIYDPKPLTRKTRRSLVPDEQKTQKYWMKRMNNVAARKSREDRRRKEIEVLETMKTREE
S2 NEDREGRGKGRGKSYSYKPAAPMVKKSERFISAEKKDSTYWERKRNNAARKSRESRREKEIEVNRKCDMLKQE

S1 NEKMKSYIDTVVKANEQLVAEMMRMKHKIQQYESSNTKVAA
S2 NDGMRFTIMNLIQERNIQLESTMKLYKEILIK....NNLI..

```

```

X non-conserved
X similar
X ≥ 50% conserved
X ≥ 70% conserved

```

Figure 1: *Phialella quadrata* PDP1e
 S1 - TRINITY DN35230 c0 g1 il.p1 ORFtype 5prime partial len 110
 S2 - TRINITY DN27 c1 g1 il.p1 ORFtype complete len 260