









Additional file 6. Complete phylogenetic analysis corresponding to that presented in Fig. 3 (maximum likelihood). Colouring of the branches corresponds to the phylogenetic groups to which the species belong, and follows the scheme established in Figure 1. Values above branches indicate maximum likelihood bootstrap values (when over 50), followed by Bayesian posterior probabilities (when over 70). The scale bar reflects the number of substitutions per site. Full length sequences that do not contain predicted N-glycosylation sites are indicated by a star. Species abbreviations: Acal=*Aplysia californica*, Acas=*Acanthamoeba castellanii*, Apec=*Asterina pectinifera* (*Patiria*), Apla=*Acanthaster planci*, Aque=*Amphimedon queenslandica*, Asub=*Acytostelium subglobosum*, Avir=*Anemonia viridis*, Awil=*Apometra wilsoni* (*Aporometra*), Bbel=*Branchiostoma belcheri*, Bflo=*Branchiostoma floridae*, Bgla=*Biomphalaria glabrata*, Bman=*Brachionus manjavacas*, Cgig=*Crassostrea gigas*, Cglo=*Chaetosphaeridium globosum*, Cint=*Ciona intestinalis*, Cowc=*Capsaspora owczarzaki*, Cscu=*Coleochaete scutata*, Ctel=*Capitella teleta*, Ddis=*Dictyostelium*

discoideum, Drer=*Danio rerio*, Eaip=*Exaiptasia pallida*, Esco=*Euprymna scolopes*, Hasi=*Haliotis asinina*, Hrob=*Helobdella robusta*, Hsap=*Homo sapiens*, Hver=*Hartmannella vermiformis*, Knit=*Klebsormidium nitens (flaccidum)*, Lana=*Lingula anatina*, Lgig=*Lottia gigantea*, Mbre=*Monosiga brevicollis*, Mcal=*Mytilus californianus*, Mjak=*Malawimonas jakobiformis*, Mmus=*Mus musculus*, Mova=*Monosiga ovata*, Nano=*Novocrania anomala*, Ngen=*Notospermus geniculatus*, Ngru=*Naegleria gruberi*, Nvec=*Nematostella vectensis*, Oaby=*Ophiactis abyssicola*, Ocar=*Oscarella carmela*, Oalg=*Olavius algarvensis*, Omac=*Octopus maculoides (bimaculoides)*, Omyk=*Oncorhynchus mykiss*, Paus=*Phoronis australis*, Pcal=*Parastichopus californicus (Apostichopus)*, Pdum=*Platynereis dumerilii*, Pfuc=*Pinctada fucata*, Pmar=*Paracercomonas marina*, Pmin=*Patiria miniata*, Ppal=*Polysphondylium pallidum*, Rsoc=*Rotaria socialis*, Sben=*Streblospio benedicti*, Scil=*Sycon ciliatum*, Sdom=*Suberites domuncula*, Skow=*Saccoglossus kowalevskii*, Smar=*Sawyeria marylandensis*, Spur=*Strongylocentrotus purpuratus*, Sros=*Salpingoeca rosetta*, Tadh=*Trichoplax adhaerens*, Tnig=*Tetraodon nigroviridis*, Trub=*Takifugu rubripes*, Ttra=*Thecamonas trahens*, Xtro=*Xenopus tropicalis*.