**Figure 4 – source data 1.** Accession numbers of the receptor sequences used for the phylogenetic analysis shown in Figure 4.

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| --- | --- | --- |
| **Species** | **Accession number** | **Receptor type based on findings of this study, with previously used names in brackets** |
| *Xenopus tropicalis* | XP\_004911210.1 | NPYR2 |
| *Latimeria chalumnae* | XP\_014350978.1 | NPYR2 |
| *Homo sapiens* | NP\_000901.1 | NPYR2 |
| *Gallus gallus* | NP\_001026299.1 | NPYR2 |
| *Saccoglossus kowalevskii* | XP\_006817255.1 | NPY/NPF-R |
| *Aplysia californica* | XP\_005089627.1, XP\_005089880.1 | NPY/NPF-R |
| *Lottia gigantea* | XP\_009066442.1 | NPY/NPF-R |
| *Lymnaea stagnalis* | CAA57620.1 | NPY/NPF-R (GPR 105) |
| *Capitela teleta* | ELT88377.1, ELT98787.1 | NPY/NPF-R |
| *Platynereis dumerilii* | AKQ63068.1 | NPY/NPF-R (GPCR 62) |
| *Crassostrea gigas* | XP\_011444490.1 | NPY/NPF-R |
| *Schmidtea mediterranea* | ANO39140.1 | NPY/NPF-R (NPY5) |
| *Schmidtea mediterranea* | ANO39130.1 | NPY/NPF-R (NPY1) |
| *Schmidtea mediterranea* | ANO39139.1 | NPY/NPF-R (NPY3) |
| *Schmidtea mediterranea* | ANO39141.1 | NPY/NPF-R (NPY6) |
| *Tribolium castaneum* | XP\_008198436.1 | NPY/NPF-R |
| *Drosophila melanogaster* | NP\_001246947.1 | NPY/NPF-R |
| *Bactrocera dorsalis* | XP\_011202740.1 | NPY/NPF-R |
| *Aedes\_aegypti* | XP\_021693392.1 | NPY/NPF-R |
| *Caenorhabditis elegans* | NP\_508234.2 | NPY/NPF-R (NPR-11) |
| *Pristionchus pacificus* | PDM84819.1 | NPY/NPF-R (NPR-11) |
| *Caenorhabditis elegans* | NP\_001293732.1 | NPY/NPF-R (NPR-12) |
| *Pristionchus pacificus* | PDM75274.1 | NPY/NPF-R (NPR-12) |
| *Asterias rubens* | MH807444 | sNPF/PrRP-R |
| *Acanthaster plancii* | XP\_022101544.1 | sNPF/PrRP-R |
| *Strongylocentrotus purpuratus* | XP\_003725178.1 | sNPF/PrRP-R |
| *Apostichopus japonicus* | PIK36230.1 | sNPF/PrRP-R |
| *Crassostea gigas* | XP\_011451552.1 | sNPF-R |
| *Platynereis dumerilii* | AKQ63001.1 | sNPF-R (NKY receptor) |
| *Capitela teleta* | ELT88594.1 | sNPF-R |
| *Schmidtea mediterranea* | ANO39142.1 | sNPF-R (NPY7) |
| *Schmidtea mediterranea* | ANO39143.1 | sNPF-R (NPY8) |
| *Schmidtea mediterranea* | ANO39131.1 | sNPF-R (NPY10) |
| *Schmidtea mediterranea* | ANO39144.1 | sNPF-R (NPY9) |
| *Drosophila melanogaster* | NP\_524176.1 | sNPF-R |
| *Tribolium castaneum* | XP\_966794.1 | sNPF-R |
| *Bombyx mori* | NP\_001127707.1 | sNPF-R (GPR A10) |
| *Bombyx mori* | NP\_001127742.1 | sNPF-R (GPR A7) |
| *Bombyx mori* | NP\_001127708.1 | sNPF-R (GPR A11) |
| *Aedes aegypti* | AGX84998.1 | sNPF-R |
| *Priapulus caudatus* | XP\_014669822.1 | sNPF-R |
| *Caenorhabditis elegans* | NP\_508816.1 | sNPF-R (NPR1) |
| *Pristionchus pacificus* | PDM70653.1 | sNPF-R (NPR1) |
| *Caenorhabditis elegans* | NP\_501701.2 | sNPF-R (NPR2) |
| *Caenorhabditis elegans* | CAB05681.1 | sNPF-R (NPR3) |
| *Caenorhabditis elegans* | NP\_001300304.1 | sNPF-R (NPR4) |
| *Pristionchus pacificus* | PDM83853.1 | sNPF-R (NPR4) |
| *Caenorhabditis elegans* | CCD70460.1 | sNPF-R (NPR5) |
| *Pristionchus pacificus* | PDM73363.1 | sNPF-R (NPR5) |
| *Homo sapiens* | NP\_004239.1 | PrRP-R |
| *Danio rerio* | NP\_001034615.1 | PrRP-R |
| *Gallus gallus* | AAW30382.1 | PrRP-R |
| *Alligator mississipiensis* | XP\_019341424.1 | PrRP-R |
| *Xenopus tropicalis* | XP\_002940396.1 | PrRP-R |
| *Branchistoma belcheri* | XP\_019646333.1 | PrRP-R |
| *Branchistoma floridae* | XP\_002608333.1 | PrRP-R |
| *Saccoglossus kowalevskii* | XP\_002740053.1, XP\_006815575.1, XP\_002738225.1 | PrRP-R |
| *Homo sapiens* | NP\_057624.3 | GPCR83 |
| *Callorhinchus milii* | XP\_007900281.1 | GPCR83 |
| *Gallus gallus* | AEO92092.1 | GPCR83 |
| *Takifugus rubripes* | XP\_011617071.1 | GPCR83 |
| *Strongylocentrotus purpuratus* | XP\_003729750.1 | GPCR83 |
| *Asterias rubens* | MG744509, MG744510 | Luqin-R |
| *Strongylocentrotus purpuratus* | XP\_783326.1, XP\_783390.1 | Luqin-R |
| *Saccoglossus kowalevskii* | XM\_002731957.1, XM\_002731958.1, XM\_006813011.1, XM\_002731956.1 | Luqin-R |
| *Aplysia californica* | XP\_012937781.1 | Luqin-R |
| *Lottia gigantea* | XP\_009064514.1, XP\_009064591.1 | Luqin-R |
| *Lymnea stagnalis* | AAB92258.1 | Luqin-R |
| *Octopus bimaculoides* | XP\_014786450.1 | Luqin-R |
| *Capitella teleta* | ELT96089.1 | Luqin-R |
| *Platynereis dumerilii* | KP420214.1 | Luqin-R |
| *Priapulus caudatus* | XP\_014666446.1, XP\_014678140.1 | Luqin-R |
| *Acyrthosiphon pisum* | XP\_008178727.1, XP\_003241610.1 | RYamide-R |
| *Tribolium castaneum* | HQ709383.1 | RYamide-R |
| *Aedes aegypti* | AGX85003.1 | RYamide-R |
| *Drosophila melanogaster* | P25931.2 | RYamide-R |
| *Caenorhabditis elegans* | NP\_001023541.1 | Luqin-R |
| *Trichuris suis* | KFD65303.1 | Luqin-R |
| *Homo sapiens* | AAB20303.1, NP\_001049.1, NP\_001050.1 | Tachykinin-R |
| *Ciona intestinalis* | [XM\_009863501.2](https://www.ncbi.nlm.nih.gov/nuccore/1087807896) | Tachykinin-R |
| *Asterias rubens* | MG744511, MG744512 | Tachykinin-R |
| *Strongylocentrotus purpuratus* | XP\_011662258.1 | Tachykinin-R |
| *Octopus vulgaris* | BAD93354.1 | Tachykinin-R |
| *Aplysia californica* | XP\_012936180.1 | Tachykinin-R |
| *Lottia gigantea* | XP\_009062052.1 | Tachykinin-R |
| *Capitella teleta* | [ELT98449.1](https://www.ncbi.nlm.nih.gov/protein/443698473?report=genbank&log$=protalign&blast_rank=1&RID=KZMXS48U014) | Tachykinin-R |
| *Urechis unitinctus* | BAB87199.1 | Tachykinin-R |
| *Drosophila melanogaster* | FBtr0085507 | Tachykinin-R |
| *Tribolium castaneum* | XP\_008194527.2 | Tachykinin-R |