

Table S1. Gene models and download information for data used in the study

Species Name	Link
<i>Acropora digitifera</i>	http://marinegenomics.oist.jp/genomes/viewer?project_id=3&current_assembly_version=oist_v1.1
<i>Acyrtosiphon pisum</i>	ftp://ftp.ensemblgenomes.org/pub/metazoa/release-25/fasta/acyrtosiphon_pisum
<i>Amphimedon queenslandica</i>	ftp://ftp.ensemblgenomes.org/pub/metazoa/release-25/fasta/amphimedon_queenslandica
<i>Anolis carolinensis</i>	ftp://ftp.ensembl.org/pub/release-78/fasta/anolis_carolinensis/
<i>Apis mellifera</i>	ftp://ftp.ensemblgenomes.org/pub/metazoa/release-25/fasta/apis_mellifera
<i>Bombus impatiens</i>	ftp://ftp.ncbi.nih.gov/genomes/Bombus_impatiens/
<i>Brranchiostoma floridae</i>	http://genome.jgi-psf.org/Brafl1/Brafl1.home.html
<i>Brugia malayi</i>	http://www.nematode.net/Data/translations_ftp/BM.trans.final.faa
<i>Caenorhabditis elegans</i>	ftp://ftp.ensembl.org/pub/release-78/fasta/caenorhabditis_elegans/
<i>Capitella teleta</i>	http://genome.jgi-psf.org/Capca1/Capca1.home.html
<i>Ciona intestinalis</i>	ftp://ftp.ensembl.org/pub/release-78/fasta/ciona_intestinalis/
<i>Danaus plexipus</i>	ftp://ftp.ensemblgenomes.org/pub/metazoa/release-25/fasta/danaus_plexippus
<i>Daphnia pulex</i>	http://genome.jgi-psf.org/Dappu1/Dappu1.download.ftp.html
<i>Drosophila melanogaster</i>	ftp://ftp.ensembl.org/pub/release-78/fasta/drosophila_melanogaster/
<i>Gallus gallus</i>	ftp://ftp.ensembl.org/pub/release-78/fasta/gallus_gallus/
<i>Gasterosteus aculeatus</i>	ftp://ftp.ensembl.org/pub/release-78/fasta/gasterosteus_aculeatus/
<i>Homo sapiens</i>	ftp://ftp.ensembl.org/pub/release-78/fasta/homo_sapiens/
<i>Hydra magnipapillata</i>	ftp://ftp.ncbi.nih.gov/genomes/Hydra_magnipapillata/protein/
<i>Ixodes scapularis</i>	ftp://ftp.ensemblgenomes.org/pub/metazoa/release-25/fasta/ixodes_scapularis
<i>Latimeria chalumnae</i>	http://useast.ensembl.org/Latimeria_chalumnae/Info/Index?redirect=no
<i>Lottia gigantea</i>	http://genome.jgi-psf.org/Lotgi1/Lotgi1.home.html
<i>Mnemiopsis leidyi</i>	http://research.nhgri.nih.gov/mnemiopsis/
<i>Monosiga brvicollis</i>	http://genome.jgi-psf.org/Monbr1/Monbr1.home.html
<i>Nematostella vectensis</i>	http://genome.jgi-psf.org/Nemve1/Nemve1.home.html
<i>Oikopleura dioica</i>	http://www.genoscope.cns.fr/externe/Download/Projets/Projet_HG/data/annotation/
<i>Pinctata fucata</i>	http://marinegenomics.oist.jp/genomes/viewer?project_id=20&current_assembly_version=ver1.0
<i>Rhodnius prolixus</i>	ftp://ftp.ensemblgenomes.org/pub/metazoa/release-25/fasta/rhodnius_prolixus
<i>Saccoglossus kowalevskii</i>	http://www.ncbi.nlm.nih.gov/protein?linkname=bioproject_protein&from_uid=42857
<i>Salpingoeca rosetta</i>	http://www.broadinstitute.org/annotation/genome/multicellularity_project/FeatureSearch.html
<i>Strigamia maritima</i>	ftp://ftp.ensemblgenomes.org/pub/metazoa/release-25/fasta/strigamia_maritima
<i>Strongylocentrotus purpuratus</i>	ftp://ftp.ensemblgenomes.org/pub/metazoa/release-25/fasta/strongylocentrotus_purpuratus/pep/
<i>Takifugu rubripes</i>	ftp://ftp.ensembl.org/pub/release-78/fasta/takifugu_rubripes/
<i>Tetranychus uticiae</i>	ftp://ftp.ensemblgenomes.org/pub/metazoa/release-25/fasta/tetranychus_urticae
<i>Tribolium castaneum</i>	ftp://ftp.ncbi.nih.gov/genomes/Tribolium_castaneum/
<i>Trichoplax adhaerens</i>	http://genome.jgi-psf.org/Triad1/Triad1.home.html
<i>Xenopus tropicalis</i>	ftp://ftp.ensembl.org/pub/release-78/fasta/xenopus_tropicalis/