

ADDITIONAL FILE 1: SUPPLEMENTARY METHODS

We found a Glass homologue in the *Platynereis* transcriptome database (<http://jekely-lab.tuebingen.mpg.de/blast/>) and we compared this sequence with of an unpublished reconstruction of the *Platynereis* genome (courtesy of D. Arendt, see Additional file 2). Both sources indicated that *Platynereis* possesses one single Glass homologue, and that two different Glass isoforms can be produced by alternative splicing. These are:

>Glass isoform 1, *Platynereis dumerilii*
MLNVRMTVDVPLCAKNTSYQKPQARMESCYLSAGGSHSHGGHHGHGSHGGGGPGGHCGGGGGSPGPSYYT
SSAAAAVAAAGELWRSSPLKPGSPASASEVCGPPRSSVDLSVNTFAMPPLDIDPLSNFFSFSSPAYKELS
VFKEKGPQDIADALLSLKHAVVHPGMNGQLSPLSPGLPPLPQSISAMAPSSSLSSYPMSHQHSQQLQSY
GMSSQYGSPPPPPPAPQYGETGSGQASCPHPQAPQHHSMPFAMSVNVSMNMNVAMGNQYNNMSMDNWGHH
PTHQPSAQYSPAAAAAAQMTSQYPSYGHSHHHHHHHHHQHNSYSASYAFSPELRSSSVSVRDMMPHPPH
KPSSASDSYKDVSSKLYLSAMRRSPRGSCSPVGLGPPPGPLRSHHPSGHLGSASSVDSKVNLCRICGKTY
ARPSTLKTMRTHSGEKPYPYRCQTCSSKFSQAANLTAHLRTHSGEKPFRCPMCDRRFSQSSSVTTHMRTHS
GERPYRCRMCKKAFSDSSTLTKLHRIHSGEKPYOCKLCILRFSSQGNLNRHMRVHANNA

>Glass isoform 2, *Platynereis dumerilii*
MESCYSAGGSHSHGGHHGHGSHGGGGPGGHCGGGGGGSPGPSYYTSSAAAAVAAAGELWRSSPLKPGSPA
SASEVCGPPRSSVDLSVNTFAMPPLDIDPLSNFFSFSSPAYKELSVFKEKGPQDIADALLSLKHAVVHPG
MNGQLSPLSPGLPPHLPQSISAMAPSSSLSSYPMSHQHSQQLQSYGMSSQYGSPPPPPPAPQYGETGSG
QASPCHPQAPQHHSMFAMPASVNVSMNMNVAMGNQYNNSMDNWGHHPHQPSAQYSPAAAAAAQMTSQYP
SYGHHHHHHHHHHHQNHSYSASYAFSPELRSSSVSVRDMMPHPHPKSSASDSYKDVSSKLYLSAMRRS
PRGSCSPVGLGPPPGRLRSHHPSGHLGSASSVDSKVNLCRICGKTYARPSTLKTTHMRTHSGEKPYRCQTCS
KSFSQAANLTAHLRTHSGEKPFRCPMCDRRFSQSSSVTTHMRTHSGERPYRCRMCKKAFSDSSTLTKHLR
THSGEKPYOCKLCLLRFSSQGNLNRHMRVHANNA

To do *in situ* hybridisation against Glass, we obtained a plasmid from a *Platynereis* EST library, and we generated an RNA probe by using T7 RNA polymerase. We checked the size of our probe by running it in an agarose gel next to an RNA ladder. The plasmid contained the following sequence (uploaded to GenBank, with accession number MK343127):

>DNA template for *glass* RNA probe

CTTGCTCCAAATCTTTCTCTCAAGCTGCTAATCTCACTGCACACTTGCGCACCCACTCTGGCGAGAAACC
TTTCAGATGTCCGATGTGTGACCGCCGTTTTTCCCAGTCGTCTTCGGTGACCACTCACATGAGAACACAT
AGCGGAGAACGGCCTTACAGATGTCGGATGTGCAAGAAGGCCTTCTCCGACAGCTCAACCCTCACCAAGC
ACCTAAGAATCCACAGTGGCGAAAAACCTTACCAGTGCAAACCTCTGTTTATTAAGATTTTTCTCAGTCTGG
AAATCTAAATAGGCACATGCGAGTACATGCTAACAATGCCTGATTATATTCTGAGCTATTCTGCTACTTC
ATTCAATCTGTGGACTGTGAACAATACCATAATGATCTGACAAGTTGTGACAGTTGTGAATTTACTGCTG
TAGTCTGTGGAATACAGCAATGTGAACTATGGACAGTTTTCTTTTTAAATGTTGACAATGGACAATGTCTA
TTATGACTGTAACATTTCGTGACATGAATGTGTTGTTTAATGATCAAAACATGTCATAGTTAATATATTTT
TTCATGACAACAAAATCTTGGTAATACACTTTCTTCTTTCCGCCTTGAAATTATTGTAGATTCAATAGTT
ATACCAATCCAATTGTTTTTCATAATGATTTTTTCCCTTGCTGTGTTTTTTCAAATAAATTCCTTGATC
AATTCCTTCTATTTCTTTTTTACTTCCTTCACTTCTTTTTTTTTCTCCATTTTCGCTTTCCTTCCATAGGCC
TAATCCTTCTTTCCCTTGCTTCCTTCATTGCCTGATTCACATTCCTTCTGTCTTCCTTCTTGTTGCATCCT
CTCCTTGCTTCTTTGTCTATCACTCATTTCCTTTCTTCCTCGCTTCTTCTATTTTTCCCTTCCTTCCTTC
TTTGCTTTCTCGTAACAATATGCTTGTCTTGCCTTCATTACTTTCTTCCTTCACCACTTGCTTCCTTCCTTGC
TCACTTTCTTGCCTTCCTTCTTTCTTGTTCCTTCTCTTCTTCCTTCTGTGCTTCCTATTCTGCTTCATT
CCTTGCTTCTCCTACCTTGTTTGTATTCCATAATCTTTTTCTTCCTTCCTTCTTCTTGATAGTTTCTTCCTTGC
TTGCTTTCTTGAAAGTGCTTGTCTTCTTCTTGTATTCATAAAAAACATAAAAACAATTTATACATACACACAA
CTTCAGATTCTTTTTTGCTACACATGATTTGAATGTGAAACATTTGTGCATAATATGTTGATATACATTT
GTTCTACTGGTGCTATTGACTATGATGTTTTATTCTGTCTTTACACTTAATTTCTTTACATCTCTTCTTT

ATTGATATGTAAAAATTGTTTCATTGCTGTTATTTTTGTTTTGTATATATAATAAACATTTTGTCTTGACTG
TGAA
AAAAAAAAAAAAAAAAAAAA

To generate a *glass-Tomato* reporter (for the full sequence and plasmid map, see Additional file 4), we amplified the following sequence of the *glass* promoter by using *Platynereis* genomic DNA as a template (ApaI and SgsI were used as restriction enzymes, cut sites are shown in lowercase letters, primer sequences are underlined, start codon appears in green and italics):

>Fragment of the *glass* promoter
aagggcccGCATCCGTGCTTGACAGAATGTGGAGTCAGGTGTTTGCACATCTTCATCACAATACAACAGC
TCCTATAAGGCTCATCCAATGGAAGGTCATGATGCCAAGTTTGCATAAAAGGTTCTAGCCTGTTCCACT
GACGGTTATTGCCTGCATGGGTTCACCCCGAATGGGGAACCCACAATTTACAGCCACTGTGGACCTTC
ATGAGAAAAAATCCAGCTGGATGTCGTTTCGGATAAGATGTTTATAATTGGAGGTCCCTTGCATCAGTGAC
TTTCAGTTTCTGTGCTGGGCAAGTAAAAATATCCCTCACATGGCGATGATGGCGTAATATAAATGTGTACC
GGTAATGCCTAGATCACACGAGAGTGGTTAAGTGACGGCGAAGTTGTAGAGGTGCCAGGAAGTCAAGTTT
CGCCTACTTTTCGGCGTTTCAAGCCATTTTGGACAATTATATAATCAATTAGAGCTTATAAATCGTCGTT
GATGGTTCCCTATTACGACGAGGCACTCGTTTTTTACGCCGAATCGCTCGTAATTACGGACGAGGCAAGAA
GAGACTTGTGTCGGCGAGTTGTCAGGAGCCTCGACGCAGTTCATTGCTTCAATGTTAAACTAGATTCGC
CCAAGGAGTCTCTTTCTTCGCCCTAGCATACTGTTGCTTCGCCCTAGCATCCTCTTACTTCATCCTAATC
TTCAATTACGCCCAAGCAAAATACATTTTACGGTGAAGCAAGTAGCTGTTTCGGCGTTTCAACAGCCTGTT
TGTGTCGGCGAGTTGTGCTCTTTTTTCGCCGAAGTTCCATTGACTCAATGATAAGTAGCCTCGCCCAACC
TGCTCTAACTTCGCCCAACCTGTCTCTAACTTCGCCCAAGCTGTCTCTAACTTCGCCCAATCATTTTGG
GGGGCTTCTGGTCTCTTGCATCGTGGTTTTCTTCCTTCGCAAAGATTCAACCGGTTGATTCTTTCGTGAA
GCAAGTTCTTGCTTACCATAAGGTCACGTGATTTCTAGGAACTTTTGGCGAGGAAGTTTAAGAAGCGCC
GTAGACGAAAATAGTTCGCCGAATTGTTGAATGTAGTTTAAAAACCTCCCTCTTTTCGGAAAAAGCAAG
AAGCGACGCGACAAGAACCCCTCTGTACGCTCCTCGTGAGAACTAGCCATAACATGCTGAGGACTCCCGCT
TTCTCCCCCATCCCATCAACTCTCATGAGCATCCAGAACTGTACTTGCAGCTTGAAGTAAGTAGCTAGTT
TCTTCAAGCTTACAGGGTGGTATTTTTATTGTAGGCCATCTGTCTATAGATCTTGCTTGTGTGATAGTAA
GTTTTGATCAGCAGTAGTTTTCAGGGGAAAAATAGTGGTTGTCTTTTACATCGAGCTCAGTAGAAGATACG
AGTGTTTAAACATCACGAAATGTTATTCTACCTGTTCCACAAAGTTGATTTTTAAATTTCAAATAATAT
GTAAATGGCACTGCCATGAAATTCGCACAGCATTGTCACAGAAGTACTGCATTATCTTTAACTTTCCATG
CAGAAGGCCAATTTATATTTTAAATGACTAAGCAAATGGGCATATAGATAGAATAGATAGATAAGATCA
GATCTATAGATAAGATTAGATAGATAGATAGATAGATAGATAGATAGATAGATAGATAGATAGATA
GATAGATAGATTGCACTGACAGTTGTGTAATTCAAATCTGTGTTAAATTTGGATCTATAAATTTGGATCT
ATTATGTTAAATTGTTGATGTTACATAACTGAGATCAATAAAACAATAGCTATTACAGAGATGACTGTTTA
CTATTAGACTGTTACATAATTGTTGATAGTTAATGAAGATTATGTAACCTTAAGTGTTGTTGTGATTTCT
TACTTGGTGAGCCATTTAAGTCATTAACTTTTGTGTTGACTTTTAAATTTTCAGTCACTTCTTATTACAAT
CAGGGGTATGGAAATAATTATTTCCAATGTTGATACACATGTTGATTTAAATCCCTGAAATATGTCATTG
GAGGTTGTTATACGACGAGACTGAAATTTTAAAGCTATTTTGGGAAGATATTTGAGGTATTTTAAATATTT
ACCAAATAAACTCTGACTAACTACTAGCTCCACTTTTATGGCAACTACAGGCACCTCCTGTTTAGGCA
GTCAGTGTAGACAGGAGCACTACACAGAATGAGCTGTCTTGTGCTAAGTGAGCTTCGCTCATGGCTTCC
TTCGGCAGCCATGAGCTGCGCTCATATTTATTTTCCTCACATAAAAAAGCAAAAAAAATCTAAAAATTTTAGG
AGATTTTGGTCACAAAAAGGAGACTTTTGCAAGAAAACTTTTAGTCAAAAGGAGTTCTGTGAGAAAGGA
GATTTTGTCAAAAGATGATTCTGGGAAAGGCATTTTTGAAAAAGGAGAGTTTGACTGTCTCTTGAAAG
GAGTACGCTTTTCGTTGTGTGGCTTGTTTTATTCAAAAGAAAGGGTAATATGTTTTTCAATATCTTTCATG
ACTGAGTTGTACACCTACATTGATCAGCACAAAGTCATTGAGACACTTGTGTCGTAGATCCAGCCGAAG
GCCAAGTTCAAAGTCAGTCTTTGCTTGTACATGCACAGACATAAAGGTATCTTTCTATCCTGATAATATT
GCAATGAAATTGATTTCAATTAACTATAGGCCTACGTGCCTGTTGAGAAAGATATTCTGATGAGTAGAAT
GCTTGGAGTCTGCTAGATGAGTTCTTGGAAGATCTTAATGGAATTACATTAGTGGGATCCAGAAGCAAGG
GCAGATAAGAAGAAAAAGAGACGTGCTTGACAAGGAGGGGGGGGGTAATAACACCCCTCTCTGTTT
ACCCCCCCCCACCTTCATCCTCCTATCTTCTCTCNATCTTGATGTAAAGGCCTCTCAGCGACTCTCTCA
GGCTTCTGAGTAGAGCTGCAATCTGATTGGCTGTTGGCGCGTGAGCTGCGCTGTGATTGGCCAGTGCCTT
TGAGTAGCCACGCCNCCTGCCTTGACGCCCTCAAGAGCTTTCACACTGCTTGATCAGGCTTAATACAC
GAATCCCACCAAGTGATAGAGCACCAGCCAACTCCGTGCGATTGTGGACAGGTCGAGGGGGATTGGGCGG
ATGCTGTGAAGTGGGACTTGCAACAGCAACAAGGAAAAACACAACAACAGGACTTGAAACCCAACTTCTT
CTGGAAACGAGCATCTCTCACATACTCCAGGTTTAAAAACAAGGAGCTCCAGGACAACAGTGTCTGAAT
CAGGTAGGTGATGTTGGATAGCATCCATCTCCAACATCAGCAACAGGCTTCATCAGTAAGCCACATCAGC

AAGCCACATCAGCAGCCTCCACGGCTGAATATCAGTTGGTCCATCAGCTTTTGAGCAGCCTCCTAGCTTG
TGAGAAAATTCTAGGACTTCCTGGCTGCTGTAGACAATCCTTACAACATCCTTCCTGTTCCCTGTAGCTTC
CTGTTGAGATGTGAATCTTGCTGATGAATGTGCTGATGTTGTTGATGATGAAGAATTCCTGATGCTTGTG
ATAATTATCGATGTTGTTGTGTCGGTGCTGTTGTCGATATGTCTGTAATTTGTTGATTATATTTTTATCT
TCCGATGATGATGCACATATCCAGCTTCTTTACCTCCCTGAGATAACATGCAGAATCTTCTCGAAACCT
TCTGAATCACCTTGAATATATACGGGTTTTTTTCTGTTTCATTTCTGAATCCAATGATTTCCCTGATTCTT
GTGCTTTATATATTCTCAAATTTATCCGAGAACGCAACCATTTTTTCACAGACTCTGCATGGGTGACAGAA
GACATGTTGGAAAGTTCGTTCCATGCACTGGCAGTTAAGCTATGTTCTTTTAGCTTAAAAAGTTGACCCA
TTTGCACAACTGAGAAGGGTCTATAAAGTGAACATTTTAAGCAGAATTCCTTGCAAGGCAAAATATCCCTT
CCAAAAAGTACTAGGTAGTAAATATTTTAGGCGACATTATAAATCATACTAGCGGTAATCCAGAAATGTA
ACTTGATTTATGCTTGTAATAATTCTACCATGCAAGTTAGGCCTCTGGAACAGTCCATGATGTAAGCAG
GACAAGATTAGGATGTTTTGTACCTGTGATGCTTCAGGTTTTCTCAACTAGATTAGCCTTATAAGCCTTT
TGCAGGTGTTTTTGCTTTTGACATAGACCTAGACCTCCAAATGGAGCTTATATGCCAAACTCGTGAGCAG
TGGGAGGTGCCAGGTCTCTATCTGTCGTTTTGGAGCTTCTCGAATCTTCACAGCCTTGCACTCTTACAAG
TTTTCGAGCTGCTTAACACCACGAAACCAACAAATGCAAATCCACTGGCTCCCTAAGCTTTGAGAGCTCT
CTTATTTGATAGGTCTCTTATTTGAGCTCTTATTCGAGCTCTCCCATTTGCTCCTATTAGAGTTGCTCAC
AAGTCGCACAACTGGGCTTAGAGGAGCTTCAAGGGAACACCCATGACAGACAGTGTTTATAAGGCATCTC
ATCAGCCCCCTTCCCTCCAAAAGATTCCCTATAAATATACTTACAATCGAATCAGCCTGAATCAGATTGGC
CTAGCAGCATTTGCCTGCAGCTTTGCCTGCACCTGCCTGCTACTGCTCACTGCAGGAGAGGAGTAAAAGT
TGCCCATCTTCCAACCTGCATACATTACAGCATTTTGGCAACACCTACACCACATCTACTTGGATTTTTGTG
AACATATTTCCATTTTGAAAATATTTTCATCTGACTGAACTTGGACTTGGAAAGTCTTGGACATATCAGGAGT
TAGAAATCTGCGCAGGCCAGCATTATGCAGTGAGAAATTTGGACACCCTGACCCATCAGCCCAGCTTTGT
GTGCTTCTGGAAGACACTCACACTTGTCTGGCAAACCATGGATCTATTTCTTTTAAATTATCCAGTTCTG
GACTGAAATGTCACAAAGATGGTAAACTAGCTTTCTGACGAGGACTTTGAAAACTTTTATACACCATTA
CACCTGCAGTCATTAGCTTCAGTTCTTAGTTTTTGACAATGGTGAGCCATTCAGTTTGGCTACAACTTA
GGAGACTTGGATCACTATTTGATACTTCTGTGTACTGGAACAAGAATTGTATCCTTCTATTGTGATGTCC
AGTTTTGAATATTGGAACTAACTTCATGTTACCATTTTCAATTTCTAATTCTCACTCGCGCTTGGGATT
TTCGTTTTCTGGTATTCTCACATTGATCTTTGACAAGTCGTCTCATATTACCAACACTGGACTTCACCACG
AACCTTTGAGATAAAATATTTACAGAAATACTCACTTTTTGAAAATTTTGGTAACCCGCTGAAATTTTGAG
CGGTGTGAGCATCATGTGGAATCAGCTACATCATATTTTTGTGCTCTCTTATATTTTTTTAATGTCTCAA
AATTGATGTTTAAACAATTTCGAGACAAATCTATTCTAGTATGAGCCCAGTCATTGGGGCCTAAAGAGCTC
TGAAAATTGAGAACTTTGAGAAAACTGTTATTTTGTACGGAAAAACACACATTTGACATTTCTGAATC
GGTAATGCGCAGTTCAGAAATGTTCCAGAAATGTACGCCATTTTGAATTTTGTGACGGGCAGACATTTTG
TCGTTTTGGTAATGCTGCTGGAGTTGATTCTCGTACAGCGAGCAGGTTATCATTGAATGCCAAGGATTTT
TGATGGACTGAATTTTCCCCCTTAGTTTGGATTAAATAAAATAGGTTTTGGAAAAAAATGCTAAACGTTT
GGATGACTGTGGAaggcgcgctt