

Supplemental materials

Sequences for overgo probes used in BAC filter screening:

Probe 1: “CCTTCCATACGAGAAACTCTCAAG” in pair with “GTGTGACGCTCATTTCCTTGAGAG”.

Probe 2: “GTACGCTCTTGCATGAAGACCGAT” in pair with “CAGACATTCCGTAAAAATCGGTCT”)

Primer sequences used in SYBR Green real-time RT-PCR:

β -Actin: forward 5'-CGAGCAGGAGATGGGAACC-3' and reverse 5'-CAACGGAAACGCTCATTGC; product size: 102 bp.

Renin: forward 5'-ATGCTTCTGGAAATGTCCGG 3' and reverse 5'-TGCAGGAAGAGCTGTGGCTT-3'; product size: 102 bp.

Cathepsin D: forward 5' TTGGCACTCCTGTCCAGACC-3' and reverse 5'-CAAGCAGGCGATGTCAGTCA-3'; product size: 101 bp.

Accessions for sequences used in the phylo-tree:

CathD_fr (BK000974), CathD_dr(CAC20111), CathD_hs(P07339), CathD_mm(P18242), CathD_rn(P24268), CathD_oa(Q9MZS8), CathD_dm(XP_080566), PepsinA_xl(BAB20798), CathD_gg(Q05744), CathE_mm(CAA71859), CathE_hs(A34401), PepsinC_hs(A29937), PepsinC_xl(BAB20797), PepsinC_gg(BAA76892), PepsinC_mm(BAB25990), Napsin_hs(NP_004842), Napsin_rn(CAB65392), Napsin_mm(BAA19004), PepsinA_hs(PEHU), PepsinA_gg(IA41443), PepsinA_mm(NP_067428), PepsinA_ts(AAB35842), Renin_rn(P08424), Renin2_mm(P00796), Renin1_mm(P06281), Renin_hs(P00797), Renin_oa(P52115), Renin_fr (BK000648), renin_dr (AY216499), CathD2_dm(AAF58249), pepsin2_dm(AAF55418), pepsin3_dm(AAF51371), pepsin4_dm(AAF52686), pepsin5_dm(AAF53016), pepsin6_dm(NP_525030), pepsin7_dm(AAF53015), APP1_ce(NP_510191), APP2_ce(NP_509142), APP3_ce(NP_505133), APP4_ce(NP_506185), APP5_ce(NP_505232), APP7_ce(NP_505132), APP8_ce(AAB06576), APP6_ce(NP_509082).

Figure Legend for Supplemental Figure.

Fig. S1. Predicted renin genes from fugu fish (A) and zebrafish (B) indicating their exon sequences (in UPPER CASE) and conceptual translations. Sequences for longer introns are omitted with the intron length indicated by the numbers inside the intron locations. The grayed “ag” or “gt” indicates the standard intron motifs at the exon-intron boundary. The underlined sequence indicate a typical poly-adenine signal.

