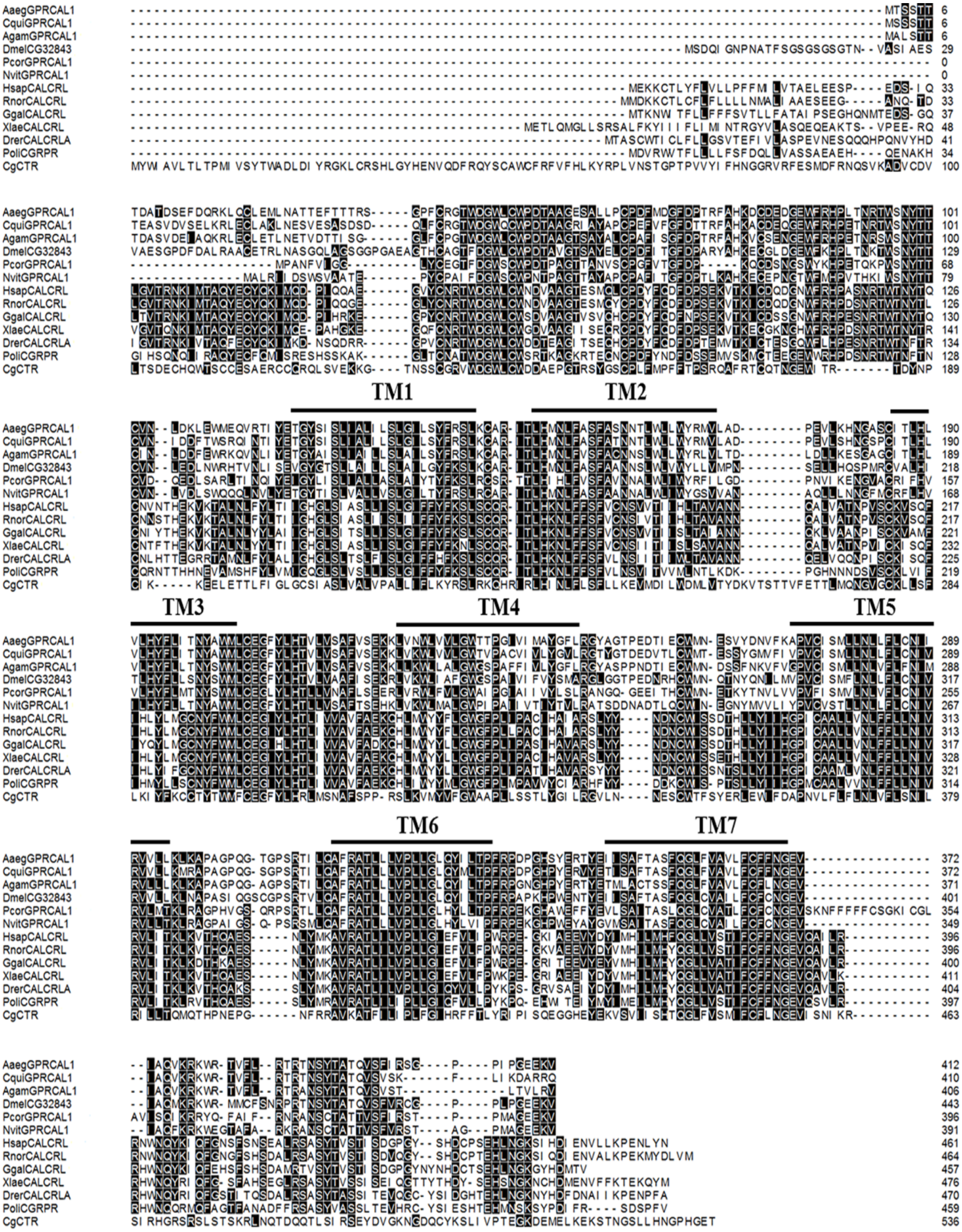
AaegGPRCAL1
CquiGPRCAL1
AgamGPRCAL1
DmelCG32843
PcorGPRCAL1
NvitGPRCAL1
HsapCALCRL
RnorCALCRL
GgalCALCRL
XlaeCALCRL
DrerCALCRLA
PoliCGRPR
CgCTR
TM1
TM2
TM3
TM4
TM5
TM6
TM7

Figure S2. Amino acid sequence alignment of calcitonin receptor-like receptors. *Aaeg*GPRCAL1 was aligned with those of other arthropods, a mollusk, and vertebrates. The *A. aegypti* GPRCAL1(AEU12191)[1] sequence is 79% identical to *C. quinquefasciatus* GPRCAL1 (CPIJ014419–PA)[2], 75% identical to *A. gambiae* GPRCAL1 (AGAP009770-PA)[3], 64% to sequenced *D. melanogaster* GPRCAL1 (AAN16138)[4] , 55% to *P. humanus corporis* GPRCAL1 (PHUM428070-PA)[5], 59% to *Nasonia vitripennis* GPRCAL1 (XP_001601649)[6], 33% to human CALCLR (NP_005786)[7], 33% to rat *R. norvegicus* CALCRL (NP_036849)[8], 32% to chicken *G. gallus* CALCRL (NP_001157122)[9], 32% to frog *X. laevis* CALCRL (NP_001080206)[10], 34% to *D. rerio* CALCRLA (NP_001004010)[11], 31% to *P. olivaceus* CGRPR (BAA92817)[12] and 27% to *C. gigas* CTR (CAD82836)[13]. Accession numbers in parenthesis are of putative (2-3 and 5-6) or cloned translated sequences (1, 4 and 7-13) from GenBank or VectorBase. Predicted transmembrane domains (TM) of *Aaeg*GPRCAL1 are indicated by a line above the sequences. Blastp analysis of the *Anopheles* genome with the *Aedes* receptor sequence identified the prediction of the *AgamGPRcal1* ORF, permitting the localization of intron-exon boundaries in the genome by eye gazing because the gene organization is also conserved in *Anopheles*. **Conserved residues between *Aaeg*GPRCAL1 and hCALCRL:** Residues in *Aaeg*GPRCAL1 with demonstrated functional significance in hCALCRL are as follows: receptor coupling with Gs (R146), receptor cell-surface expression (Y209, L210, H211, E371, and V372) [1,2], structural stabilization (P236, P273, P323 and P333) [3], GPCR kinases phosphorylation (S391, S398, T382, T387, T389 and T395) [4]. In hCALCRL, aspartate (D69) in the N-terminus and leucine (L351) in TM6 are important residues associated with RAMP1; these corresponding residues are conserved in *Aaeg*GPRCAL1 (D45 and L331) and *Dmel*GPRCAL1 (D73 and L360) [5,6].

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