



**Supplemental Figure S2. Sequence comparison of APETx2 with other sea anemone toxins. A.** Phylogenetic tree, Nav, inhibitor of voltage-gated Na<sup>+</sup> channels; K, inhibitor of K<sup>+</sup> channels. Ae I from *Actinia equina*; Am II from *Anthopsis maculata*; ApA, ApB, from *Anthopleura xanthogrammica*; APETx1 and APETx2 from *Anthopleura elegantissima*; AsKS (kaliseptine), AsKC (kalicludines); BDS-I and BDS-II from *Anemonia sulcata*; BcIV from *Bunodosoma caissarum*; BgK from *Bunodosoma granulifera*; Da I from *Dofleinia armata*; PaTX from *Entacmaea actinostoloides*; Rp3 from *Radianthus paumotensis*; Sh1 and ShK from *Stychodactyla helianthus*; **B.** Alignment of the novel sea anemone toxins to some of the classical Nav-targeting sea anemone toxins. Original references are cited in (Honma *et al.*, 2006; Shiomi, 2009)

### References

- Honma, T, Shiomi, K (2006) Peptide toxins in sea anemones: structural and functional aspects. *Mar Biotechnol (NY)* **8**(1): 1-10.
- Shiomi, K (2009) Novel peptide toxins recently isolated from sea anemones. *Toxicon* **54**(8): 1112-1118.