

**Product Name** : Tamapin TFA  
**Cat. No.** : PC-21845  
**CAS No.** :  
**Molecular Formula** :  $C_{146}H_{238}N_{44}O_{41}S_6 \cdot xC_2HF_3O_2$   
**Molecular Weight** : 3458.11 (free base)  
**Target** : Potassium Channel  
**Solubility** : 10 mM in DMSO

Ala-Phe-Cys-Asn-Leu-Arg-Arg-Cys-Glu-Leu-Ser-Cys-Arg-Ser-Leu-Gly-Leu-I  
Cys-Val-Pro-Tyr-NH<sub>2</sub>  
(Disulfide bridge: Cys3-Cys21, Cys8-Cys26, Cys12-Cys28)

## Biological Activity

Tamapin TFA salt is a venom peptide from the Indian red scorpion (*Mesobuthus tamulus*), potent and selective inhibitor of small conductance calcium-activated potassium channel 2 (SK2, KCNN2) with IC<sub>50</sub> of 24 pM.

Tamapin displays remarkable selectivity for SK2 versus SK1 ( approximately 1750-fold) and SK3 ( approximately 70-fold) channels.

Tamapin mitigates physiological abnormalities in reporter-positive neurons in PAE mice.

Tamapin improves impaired motor skill learning in PAE mice.

Tamapin reverses learning deficits in a mouse model of fetal alcohol spectrum disorders.

## References

Pedarzani P, et al. J Biol Chem. 2002 Nov 29;277(48):46101-9.

**Caution: Product has not been fully validated for medical applications. Lab Use Only!**

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