

## Iberitoxin TFA

<b>Cat. No.:</b>	HY-P0190A
<b>Molecular Formula:</b>	$C_{179}H_{274}N_{50}O_{55} \cdot xC_2HF_3O_2$
<b>Sequence:</b>	{Glp}-Phe-Thr-Asp-Val-Asp-Cys-Ser-Val-Ser-Lys-Glu-Cys-Trp-Ser-Val-Cys-Lys-Asp-Leu-Phe-Gly-Val-Asp-Arg-Gly-Lys-Cys-Met-Gly-Lys-Lys-Cys-Arg-Cys-Tyr-Gln (Disulfide bridge: Cys7-Cys28, Cys13-Cys33, Cys17-Cys35) <small>{Glp}-FTDVDCSVSKECWSVCKDLFGVDRGKCMGKKCRCYQ (Disulfide bridge: Cys7-Cys28, Cys13-Cys33, Cys17-Cys35) (TFA salt)</small>
<b>Sequence Shortening:</b>	{Glp}-FTDVDCSVSKECWSVCKDLFGVDRGKCMGKKCRCYQ (Disulfide bridge: Cys7-Cys28, Cys13-Cys33, Cys17-Cys35)
<b>Target:</b>	Potassium Channel
<b>Pathway:</b>	Membrane Transporter/Ion Channel
<b>Storage:</b>	Sealed storage, away from moisture and light Powder    -80°C    2 years -20°C    1 year  * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)

### BIOLOGICAL ACTIVITY

<b>Description</b>	Iberitoxin (TFA) is a selective high conductance $Ca^{2+}$ -activated $K^+$ channel inhibitor with a $K_d$ of ~1 nM. Iberitoxin (TFA) does not block other types of voltage-dependent ion channels <sup>[1][2][3]</sup> .
<b>IC<sub>50</sub> &amp; Target</b>	Kd: 1 nM ( $Ca^{2+}$ -activated $K^+$ channel) <sup>[1][3]</sup>

### REFERENCES

- [1]. Galvez A, et al. Purification and characterization of a unique, potent, peptidyl probe for the high conductance calcium-activated potassium channel from venom of the scorpion *Buthus tamulus*. *J Biol Chem*. 1990;265(19):11083-11090.
- [2]. Echeverry S, et al. Activation of BK Channel Contributes to PL-Induced Mesenchymal Stem Cell Migration. *Front Physiol*. 2020;11:210.
- [3]. Wang RJ, et al. Downregulation of large conductance calcium-activated potassium channels in paraventricular nucleus contributes to sympathoexcitation in rats with chronic heart failure. *Zhonghua Xin Xue Guan Bing Za Zhi*. 2018;46(3):178-186.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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