

ω -Agatoxin IVA TFA

Cat. No.:	HY-P1080A
Molecular Formula:	C ₂₁₇ H ₃₆₀ N ₆₈ O ₆₀ S ₁₀ C ₂ HF ₃ O ₂
Molecular Weight:	5316.27
Sequence:	Lys-Lys-Lys-Cys-Ile-Ala-Lys-Asp-Tyr-Gly-Arg-Cys-Lys-Trp-Gly-Gly-Thr-Pro-Cys-Cys-Arg-Gly-Arg-Gly-Cys-Ile-Cys-Ser-Ile-Met-Gly-Thr-Asn-Cys-Glu-Cys-Lys-Pro-Arg-Leu-Ile-Met-Glu-Gly-Leu-Gly-Leu-Ala (Disulfide bridge:Cys4-Cys20,Cys12-Cys25,Cys19-Cys36,Cys27-Cys34)
Sequence Shortening:	KKKCIADYGRCKWGGTPCCRGRGCICSIMGTNCECKPRLIMEGLGLA (Disulfide bridge:Cys4-Cys20,Cys12-Cys25,Cys19-Cys36,Cys27-Cys34)
Target:	Calcium Channel
Pathway:	Membrane Transporter/Ion Channel; Neuronal Signaling
Storage:	Sealed storage, away from moisture and light, under nitrogen 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, under nitrogen)

BIOLOGICAL ACTIVITY

Description

ω -Agatoxin IVA TFA is a potent, selective P/Q type Ca²⁺ (Cav2.1) channel blocker with IC₅₀s of 2 nM and 90 nM for P-type and Q-type Ca²⁺ channels, respectively. ω -Agatoxin IVA TFA (IC₅₀, 30-225 nM) inhibits glutamate exocytosis and calcium influx elicited by high potassium. ω -Agatoxin IVA TFA also blocks the high potassium-induced release of serotonin and norepinephrine. ω -Agatoxin IVA TFA has no effect on L-type or N-type calcium channels^{[1][2]}.

REFERENCES

- [1]. M Kimura, et al. Involvement of P-type calcium channels in high potassium-elicited release of neurotransmitters from rat brain slices. *Neuroscience*. 1995 Jun;66(3):609-15.
- [2]. T Teramoto, et al. A novel type of calcium channel sensitive to omega-agatoxin-TK in cultured rat cerebral cortical neurons. *Brain Res*. 1997 May 9;756(1-2):225-30.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA