

ω-conotoxin SO-3

Product name : ω-conotoxin SO-3	Synonyms :
Catalog # : 08CON013	
<p>Product description</p> <p>ω-conotoxin SO-3 is a selective blocker of N-type voltage-sensitive calcium channels. EC₅₀ for ω-conotoxin SO-3 is 0.16 μM (similar to ω-conotoxin MVIIA) on HVA calcium currents. ω-conotoxin SO-3 did not show any inhibiting effects on L-type, P/Q-type and R-type currents at 3 μM concentration. ω-conotoxin SO-3 has no effect on voltage-sensitive sodium currents, delayed rectifier potassium currents and transient outward potassium currents. At 3 μM, the inhibition amounts of HVA I_{Ca} was very similar between ω-conotoxin SO-3 and ω-conotoxin MVIIA (~ 32%). Their inhibitory effects are almost fully reversible but their half-time for recovery are different (~ 7.5 min for ω-conotoxin SO-3 and ~ 4.14 min for ω-conotoxin MVIIA). ω-conotoxin SO-3 displays an analgesic potency similar to ω-conotoxin MVIIA in a range of acute and chronic pain models in rodents, but has less adverse effects compared with identical dosages of ω-conotoxin MVIIA injected intrathecally.</p>	
<p>Product specifications</p> <p>AA sequence: Cys¹-Lys-Ala-Ala-Gly-Lys-Pro-Cys⁸-Ser-Arg-Ile-Ala-Tyr-Asn-Cys¹⁵-Cys¹⁶-Thr-Gly-Ser-Cys²⁰-Arg-Ser-Gly-Lys-Cys²⁵-NH₂</p> <p>Disulfide bonds: Cys¹-Cys¹⁶, Cys⁸-Cys²⁰ and Cys¹⁵-Cys²⁵</p> <p>Length (aa): 25</p> <p>Formula: C₁₀₀H₁₆₅N₃₅O₃₂S₆</p> <p>Molecular Weight: 2567.07 Da</p> <p>Appearance: White lyophilized solid</p> <p>CAS number:</p> <p>Source: Synthetic</p> <p>Counterion: TFA salts</p> <p>Solubility: Water or saline buffer, 5 mg/mL maximum (recommendation)</p>	
<p>Formulation</p> <p>Storage/Stability: Shipped at ambient temperature under lyophilized powder. Store at -20°C (-4°F). Do not freeze-thaw. Aliquot sample if required and store at -80°C (-112°F).</p> <p>Expiry date: One year</p> <p>Use restrictions: For laboratory use only. Not for drug, household or other uses. Not for use in diagnostic or therapeutic procedures.</p>	
<p>Related products</p> <ul style="list-style-type: none"> • ω-conotoxin MVIIA - #08CON001: blocks Ca_v2.2 channels • ω-conotoxin MVIIIC - #08CON002: blocks Ca_v2.1 and Ca_v2.2 channels • ω-agatoxin IVA - #11AGA001: selective inhibitor of P/Q-type calcium channel (Ca_v2.1) • ω-conotoxin GVIA - #08CON003: Ca_v2.2 inhibitor • SNX482 - #08SNX001: selective inhibitor of R-type voltage-sensitive calcium channels 	
<p>References</p> <ul style="list-style-type: none"> • Wen, L., <i>et al.</i> (2005) SO-3, a new O-superfamily conopeptide derived from <i>Conus striatus</i>, selectively inhibits N-type calcium currents in cultured hippocampal neurons, <i>Br J Pharmacol</i>. • Li, Z., <i>et al.</i> (2003) Effect of new O-superfamily conotoxin SO3 on sodium and potassium currents of cultured hippocampal neurons, <i>Brain Res</i>. 	

For laboratory research use only