

## ω-conotoxin MVIIA

<b>Product name:</b> ω-conotoxin MVIIA	<b>Synonyms :</b> omega CnTx MVIIA
<b>Catalog # :</b> 08CON001	
<p><b>Product description</b></p> <p>ω-Conotoxin MVIIA (omega-conotoxin MVIIA) has been isolated from the venom of the cone Conus magus. Omega-conotoxins act at presynaptic membranes, they bind and block voltage-sensitive calcium channels (VSCC). ω-conotoxin MVIIA blocks N-type voltage-gated calcium channels (Ca<sub>v</sub>2.2/CACNA1B). ω-conotoxin MVIIA is available as analgesic drug under the name Prialt®. It blocks acute pain in patients who no longer obtain relief from opiate drugs. It is 100 to 1.000 times more potent than morphine. This toxin blocks calcium channels and disables nerves that transmit pain signals.</p>	
<p><b>Product specifications</b></p> <p><b>AA sequence:</b> Cys<sup>1</sup>-Lys-Gly-Lys-Gly-Ala-Lys-Cys<sup>2</sup>-Ser-Arg-Leu-Met-Tyr-Asp-Cys<sup>3</sup>-Cys<sup>4</sup>-Thr-Gly-Ser-Cys<sup>5</sup>-Arg-Ser-Gly-Lys-Cys<sup>6</sup>-NH<sub>2</sub></p> <p><b>Disulfide bonds:</b> Cys<sup>1</sup>-Cys<sup>4</sup>, Cys<sup>2</sup>-Cys<sup>5</sup> and Cys<sup>3</sup>-Cys<sup>6</sup></p> <p><b>Length (aa):</b> 25</p> <p><b>Formula:</b> C<sub>102</sub>H<sub>172</sub>N<sub>36</sub>O<sub>32</sub>S<sub>6</sub></p> <p><b>Appearance:</b> White lyophilized solid</p> <p><b>Molecular Weight:</b> 2639.03 Da</p> <p><b>CAS number:</b> [107452-89-1]</p> <p><b>Source:</b> Synthetic</p> <p><b>Counterion:</b> TFA salts</p> <p><b>Solubility:</b> Water or saline buffer, 5 mg/mL maximum (recommendation)</p>	
<p><b>Formulation</b></p> <p><b>Storage/Stability:</b> 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><b>Expiry date:</b> One year</p> <p><b>Use restrictions:</b> For laboratory use only. Not for drug, household or other uses. Not for use in diagnostic or therapeutic procedures.</p>	
<p><b>Related products</b></p> <ul style="list-style-type: none"> <li>• <a href="#">ω-conotoxin GVIA - #08CON003</a>: Ca<sub>v</sub>2.2 inhibitor</li> <li>• <a href="#">ω-conotoxin MVIIC - #08CON002</a>: N, P and Q type calcium channels</li> <li>• <a href="#">ω-conotoxin SO3 - #08CON013</a>: selective N-type voltage-sensitive calcium channels blocker</li> <li>• <a href="#">SNX482 - #08SNX001</a>: selective blocker of R-type voltage-sensitive calcium channels (Ca<sub>v</sub>2.3)</li> <li>• <a href="#">ω-agatoxin IVA - #11AGA001</a>: blocker of P/Q-type calcium channel (Ca<sub>v</sub>2.1)</li> </ul>	
<p><b>References</b></p> <ul style="list-style-type: none"> <li>• Miljanich, G. P. (2004) Ziconotide: neuronal calcium channel blocker for treating severe chronic pain, <i>Curr Med Chem</i>.</li> <li>• Basus, V. J., et al. (1995) Solution structure of omega-conotoxin MVIIA using 2D NMR spectroscopy, <i>FEBS Lett</i>.</li> <li>• Olivera, B. M., et al. (1987) Neuronal calcium channel antagonists. Discrimination between calcium channel subtypes using omega-conotoxin from Conus magus venom, <i>Biochemistry</i>.</li> <li>• Olivera, B. M., et al. (1985) Peptide neurotoxins from fish-hunting cone snails, <i>Science</i>.</li> </ul>	

For laboratory research use only