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Molecular Tools for the Life Science Community

Certificate of Analysis

5'-Iodoresiniferatoxin (5'-IRTX)

Cat. #: I-800

Origin: Iodinated form of Resiniferatoxin, produced by the Moroccan cactus *Euphorbia resinifera*.

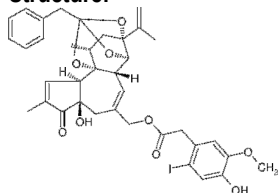
Source description: Natural.

M.W.: 755.6 daltons.

Purity: >99%.

Effective concentration: 100 nM - 10 μ M.

Structure:



Chemical name: 6,7-Deepoxy-6,7-didehydro-5-deoxy-21-dephenyl-21-(phenylmethyl)-daphnetoxin,20-(4-hydroxy-5-iodo-3-methoxybenzeneacetate).

Molecular formula: C₃₇H₃₉IO₉.

CAS No.: 535974-91-5.

Activity: 5'-Iodoresiniferatoxin is a potent and partial antagonist of the TRPV1 (Vanilloid/Capsaicin receptor 1) channel¹. It also abolishes the inhibitory effect of capsaicin on Ca_v currents in DRG neurons².

References:

1. Wahl, P. *et al.* (2001) *Mol. Pharmacol.* **59**, 9.
2. Wu, Z.Z. *et al.* (2005) *J. Biol. Chem.* **280**, 18142.

Sizes: 0.5 mg, 5 x 0.5 mg, or 1 mg lyophilized powder.

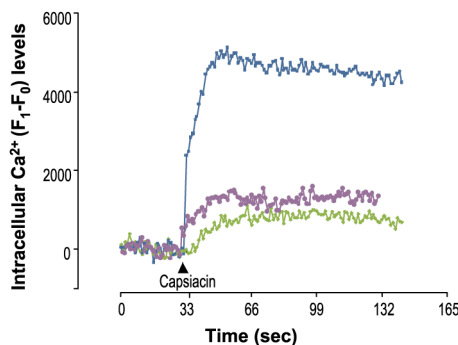
Storage before reconstitution: Lyophilized powder can be stored intact at room temperature for several weeks. For longer periods, it should be stored at -20°C.

Reconstitution: DMSO or Ethanol. Centrifuge all product preparations before use (10000 x g 5 min).

Storage and stability after reconstitution: Up to two week at 4°C or six months at -20°C.

Protect from light.

Bioassay: 5'-Iodoresiniferatoxin inhibits Capsaicin induced Ca²⁺ influx via the activation of TRPV1 expressed in HEK-293 cells.



Cells were loaded with 1 mM fluo-3 AM and then stimulated with 10 μ M Capsaicin in the absence (blue) or presence (purple) of 100 nM and 200 nM (green) 5'-Iodoresiniferatoxin (#I-800). The figure shows intracellular Ca²⁺ levels before and after stimulation of cells with 10 μ M Capsaicin.

For research purposes only, not for human use.
Last Update: February, 2010.