

## Resiniferatoxin (RTX)

**Cat. #:** R-400

**Current Lot #:** R400RF0105, R400RF011

**Origin:** *Euphorbia resinifera* (Moroccan cactus).

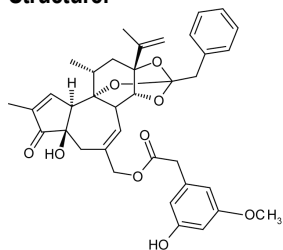
**Source description:** Natural.

**M.W.:** 628.72 daltons.

**Purity:** >95%.

**Effective concentration:** 20 nM - 1  $\mu$ M.

**Structure:**



**Chemical name:** 4-Hydroxy-3-methoxy-[(2S,3aR,3bS,6aR,9aR,9bR,10R,11aR)-3a,3b,6,6a,9a,10,11,11a-octahydro-6a-hydroxy-8,10-dimethyl-11a-(1-methylethenyl)-7-oxo-2-(phenylmethyl)-7H-2,9-b-epoxyazuleno[5,4-e]-1,3-benzodioxol-5-yl]benzeneaceta.

**Molecular formula:** C<sub>37</sub>H<sub>40</sub>O<sub>9</sub>.

**CAS No.:** 57444-62-9.

**Activity:** Resiniferatoxin is a potent and selective agonist of the TRPV1 (Vanilloid/Capsaicin receptor 1) channel<sup>1</sup>.

**References:**

1. Szallasi, A. and Blumberg, P.M. (1989) *Neurosci.* **30**, 515.

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

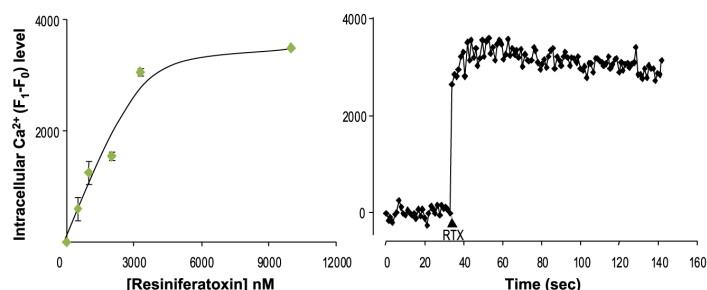
**Storage before reconstitution:** Lyophilized powder can be stored intact at room temperature for several weeks. For longer periods, it should be stored at -20°C.

**Reconstitution:** Methanol 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:** Resiniferatoxin induces Ca<sup>2+</sup> influx via activation of TRPV1 expressed in HEK293 cells.



Cells were loaded with 1mM fluo-3 AM and then stimulated with **Resiniferatoxin** (#R-400). The left panel shows the intracellular Ca<sup>2+</sup> levels 10 sec post stimulation with different concentrations of Resiniferatoxin plotted against drug concentration (ED<sub>50</sub> = 2  $\mu$ M). The right panel shows cytoplasmic Ca<sup>2+</sup> before and after stimulation of cells with 10  $\mu$ M Resiniferatoxin.

For research purposes only, not for human use.

Last Update: February, 2010.