



# SZABO SCANDIC

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## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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### Lieferung & Zahlungsart

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### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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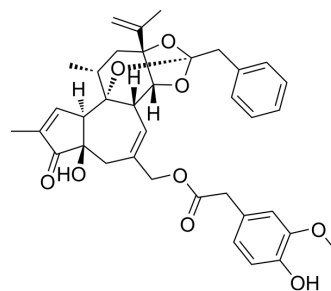
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## Resiniferatoxin

**Cat. No.:** HY-N2333  
**CAS No.:** 57444-62-9  
**Molecular Formula:** C<sub>37</sub>H<sub>40</sub>O<sub>9</sub>  
**Molecular Weight:** 628.71  
**Target:** TRP Channel  
**Pathway:** Membrane Transporter/Ion Channel; Neuronal Signaling  
**Storage:** -20°C, protect from light  
 \* In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



### SOLVENT & SOLUBILITY

|                                                                               |                                                                                                                                           |                                      |      |           |           |            |
|-------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|------|-----------|-----------|------------|
| In Vitro                                                                      | DMSO : 50 mg/mL (79.53 mM; Need ultrasonic)                                                                                               |                                      |      |           |           |            |
|                                                                               | Preparing Stock Solutions                                                                                                                 | <div>Solvent<br/>Concentration</div> | Mass | 1 mg      | 5 mg      | 10 mg      |
|                                                                               |                                                                                                                                           | 1 mM                                 |      | 1.5906 mL | 7.9528 mL | 15.9056 mL |
|                                                                               |                                                                                                                                           | 5 mM                                 |      | 0.3181 mL | 1.5906 mL | 3.1811 mL  |
|                                                                               |                                                                                                                                           | 10 mM                                |      | 0.1591 mL | 0.7953 mL | 1.5906 mL  |
| Please refer to the solubility information to select the appropriate solvent. |                                                                                                                                           |                                      |      |           |           |            |
| In Vivo                                                                       | 1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline<br>Solubility: ≥ 1.25 mg/mL (1.99 mM); Clear solution |                                      |      |           |           |            |
|                                                                               | 2. Add each solvent one by one: 10% DMSO >> 90% corn oil<br>Solubility: ≥ 1.25 mg/mL (1.99 mM); Clear solution                            |                                      |      |           |           |            |

### BIOLOGICAL ACTIVITY

|             |                                                                                                                                                                                                                                                                                                                                                                          |
|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Description | Resiniferatoxin ((+)-Resiniferatoxin), is a selective agonist of transient receptor potential vanilloid 1 (TRPV1) receptor agonist. Resiniferatoxin can be isolated from the Euphorbia resinifera plant. Resiniferatoxin eliminates TRPV1+ primary sensory afferents and blunt cardiac sympathetic afferent reflex for a relatively long period <sup>[1][2]</sup> .      |
| In Vitro    | Resiniferatoxin causes extremely prolonged channel opening and calcium influx, which results in cytotoxicity to the TRPV1-positive pain fibers or cell bodies <sup>[1]</sup> .<br>MCE has not independently confirmed the accuracy of these methods. They are for reference only.                                                                                        |
| In Vivo     | Resiniferatoxin (2 µg/10 µl; injected intrathecally into the T2/T3 interspace; four weeks after coronary artery occlusion to induce heart failure in rats) significantly and selectively abolishes the afferent markers expression (TRPV1 and calcitonin gene-related peptide) in dorsal horn and reduced overactivated CSNA. Resiniferatoxin significantly reverses the |

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prolongation of action potential duration (APD) and APD alternans, reduces the inducibilities of ventricular arrhythmias<sup>[2]</sup>. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

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## CUSTOMER VALIDATION

- Cell Rep. 2024 Oct 15;43(10):114859.

See more customer validations on [www.MedChemExpress.com](http://www.MedChemExpress.com)

## REFERENCES

[1]. Brown DC. Resiniferatoxin: The Evolution of the "Molecular Scalpel" for Chronic Pain Relief. Pharmaceuticals (Basel). 2016;9(3):47. Published 2016 Aug 11.

[2]. Wu Y, et al. Resiniferatoxin reduces ventricular arrhythmias in heart failure via selectively blunting cardiac sympathetic afferent projection into spinal cord in rats. Eur J Pharmacol. 2020;867:172836.

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

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