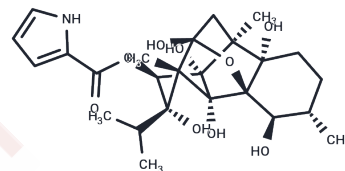


Ryanodine

Chemical Properties

| | |
|-------------------|---|
| CAS No. : | 15662-33-6 |
| Formula: | C ₂₅ H ₃₅ N ₁ O ₉ |
| Molecular Weight: | 493.553 |
| Storage: | Powder: -20°C for 3 years In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA. |



Biological Description

| | |
|---------------|--|
| Description | Ryanodine, a diterpenoid poison derived from <i>Ryania speciosa</i> , acts as a modulator of the ryanodine receptor, which is permeable to cells. Depending on its concentration, ryanodine can either stimulate or inhibit Ca ²⁺ release mediated by these receptors. |
| Targets(IC50) | Others, Calcium Channel |
| In vivo | At concentrations above 250 nM, ryanodine induces a slowly developing, dose dependent contracture which could not be blocked by 5 mM Co ²⁺ [1]. Ryanodine (100-5000 nM, 30-120 minutes) irreversibly depresses twitch and tetanic tension of both fast and slow muscle in a dose-related manner[1]. |

Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|-------|-----------|------------|------------|
| 1 mM | 2.0261 mL | 10.1307 mL | 20.2614 mL |
| 5 mM | 0.4052 mL | 2.0261 mL | 4.0523 mL |
| 10 mM | 0.2026 mL | 1.0131 mL | 2.0261 mL |
| 50 mM | 0.0405 mL | 0.2026 mL | 0.4052 mL |

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Meissner G, et al. Ryanodine activation and inhibition of the Ca²⁺ release channel of sarcoplasmic reticulum. *J Biol Chem.* 1986 May 15;261(14):6300-6.

Fryer MW, et al. The action of ryanodine on rat fast and slow intact skeletal muscles. *J Physiol.* 1989 Jul;414:399-413.

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