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## DATASHEET

Ryanodine

### Product overview

<b>Name</b>	Ryanodine
<b>Cat No</b>	HB1320
<b>Biological action</b>	Inhibitor
<b>Purity</b>	>98%
<b>Description</b>	Potent Ca <sup>2+</sup> release inhibitor

### Images



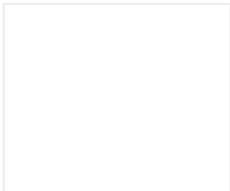
### Biological Data

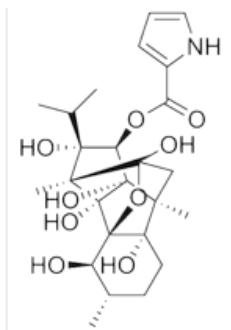
<b>Biological description</b>	Potent Ca <sup>2+</sup> release inhibitor. Inhibits release from the cardiac and skeletal muscle sarcoplasmic reticulum (IC <sub>50</sub> values are 2.8 and 10 nM respectively). Shows actions to slow arrhythmia development in heart failure.
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### Solubility & Handling

<b>Storage instructions</b>	-20°C (desiccate)
<b>Solubility overview</b>	Soluble in ethanol (10mM) and in DMSO (25mM)
<b>Important</b>	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use.

### Chemical Data

<b>Chemical name</b>	1 <i>H</i> -Pyrrole-2-carboxylic acid, (3 <i>S</i> ,4 <i>R</i> ,4 <i>aR</i> ,6 <i>S</i> ,7 <i>S</i> ,8 <i>R</i> ,8 <i>aS</i> ,8 <i>bR</i> ,9 <i>S</i> ,9 <i>aS</i> ) -dodecahydro-4,6,7,8 <i>a</i> ,8 <i>b</i> ,9 <i>a</i> -hexahydroxy-3,6 <i>a</i> ,9-tri methyl-7-(1-methylethyl)-6,9-methanobenzo[1,2]pent aleno[1,6- <i>bc</i> ]furan-8-yl ester
<b>Molecular Weight</b>	493.55
<b>Chemical structure</b>	



**Molecular Formula**

C<sub>25</sub>H<sub>35</sub>NO<sub>9</sub>

**CAS Number**

15662-33-6

**PubChem identifier**

11317883

**SMILES**

CC(C)[C@@]6(O)C(OC(=O)c1cccn1)[C@]2(O)[C@@]5(O)[C@@]34O[C@@](O)(C[C@@]2(C)[C@@]4(O)CC[C@H](C)[C@H]3O)[C@]56C

**Source**

Extracted from *ryania speciosa*

**InChi**

InChI=1S/C25H35NO9/c1-12(2)22(31)17(34-16(28)14-7-6-10-26-14)23(32)18(4)11-21(30)19(22,5)25(23,33)24(35-21)15(27)13(3)8-9-20(18,24)29/h6-7,10,12-13,15,17,26-27,29-33H,8-9,11H2,1-5H3/t13-,15+,17+,18-,19+,20-,21-,22+,23+,24+,25+/m0/s1

**InChiKey**

JJSYXNQGLHBRRK-SFEDZAPPSA-N

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## References

### The pharmacology of ryanodine and related compounds.

Sutko JL *et al* (1997) *Pharmacol Rev* 49(1)

**PubMedID**

[9085309](#)

### Effects of sarcolemmal Ca(2+) entry, ryanodine function, and kinase inhibitors on a rabbit model of heart failure.

Kijawornrat A *et al* (2010) *Int Heart J* 51(4)

**PubMedID**

[20716847](#)

### Ryanodine modification of RyR1 retrogradely affects L-type Ca(2+) channel gating in skeletal muscle.

Bannister RA *et al* (2009) *J Muscle Res Cell Motil* 30(5-6)

**PubMedID**

[19802526](#)

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