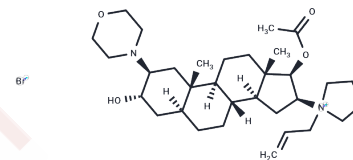


## Rocuronium bromide

## Chemical Properties

CAS No. :	119302-91-9
Formula:	C <sub>32</sub> H <sub>53</sub> BrN <sub>2</sub> O <sub>4</sub>
Molecular Weight:	609.68
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	Rocuronium bromide (ORG 9426) is a muscle relaxant or aminosteroid non-depolarizing neuromuscular blocker. During surgery or mechanical ventilation, it is used to facilitate endotracheal intubation and to provide skeletal muscle relaxation.
Targets(IC50)	AChR
In vitro	Rocuronium effectively reduces indirectly elicited twitch tensions in both normal diaphragms (IC <sub>50</sub> : 9.84 μM) and those pretreated, showing a significant decrease (P < .01, n = 6) in a concentration-dependent manner [1]. It exhibits a similar ED <sub>95</sub> for both children and adults, with a duration of action comparable to vecuronium but is shorter in children. Conventional doses of cholinesterase inhibitors can readily reverse its effects [2]. The onset time for maximum block is 1.7 (32) minutes, with the duration until 25% recovery of twitch height at 53 (19) minutes, and recovery from 25% to 75% of twitch height taking 20 (37) minutes [3].

## Solubility Information

Solubility	DMSO: 113 mg/mL (185.34 mM), Sonication is recommended. H <sub>2</sub> O: 112 mg/mL (183.7 mM), Sonication is recommended. Ethanol: 113 mg/mL (185.34 mM), Sonication is recommended. ( < 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Corn Oil: 3.3 mg/mL (5.41 mM), Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

### Preparing Stock Solutions

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	1mg	5mg	10mg
1 mM	1.6402 mL	8.201 mL	16.402 mL
5 mM	0.328 mL	1.6402 mL	3.2804 mL
10 mM	0.164 mL	0.8201 mL	1.6402 mL
50 mM	0.0328 mL	0.164 mL	0.328 mL

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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

- Zan U, et al. Cytotechnology,2011, 63(3), 239-245.
- Anzenbacherova E, et al. J Pharmacol Sci,2015, 127(2), 190-195.
- Auer U, et al. Vet Ophthalmol,2011, 14(4), 244-247.
- Tachibana M, et al. Pharmacology,2003, 68(2), 96-104.
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