



Rocuronium Bromide

PRODUCT DATA SHEET

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Product Name:	Rocuronium Bromide
Product Number:	R045
CAS Number:	119302-91-9
Molecular Formula:	$C_{32}H_{53}BrN_2O_4$
Molecular Weight:	609.68
Form:	Powder
Appearance:	Off-white to yellowish powder
Solubility:	Soluble in water, ethanol, and DMSO.
Source:	Synthetic
Storage Conditions:	$\leq 30^{\circ}C$
Description:	<p>Rocuronium Bromide is the bromide salt form of Rocuronium, a fumarate, aminosteroid type non-depolarizing neuromuscular blocking agent that relaxes the skeletal muscle. It was introduced in 1994, and has a similar pharmacokinetic profile to Vecuronium, as it is a derivative of the 3-hydroxy metabolite of Vecuronium. It competes with acetylcholine in binding to cholinergic receptors at neuromuscular junctions. Rocuronium Bromide is soluble in water, ethanol, and DMSO.</p>
Mechanism of Action:	<p>Rocuronium Bromide competes with acetylcholine and binds to cholinergic receptors at neuromuscular junctions. It binds to nicotinic receptors in the neuromuscular junction. It is classified as a neuromuscular nondepolarizing agent since it does not cause depolarization of the motor end plate.</p>

References:

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Koksal PM and Gürbüz M(2015) Analysis of genotoxic activity of ketamine and Rocuronium Bromide using the somatic mutation and recombination test in *Drosophila melanogaster*. Environ Toxicol Pharmacol. 39(2):628-634 PMID 25682000

Sauer et al (2017) Rocuronium is more hepatotoxic than succinylcholine *in vitro*. Eur. J. Anaesthesiol 34(9):623-627 PMID 28763317

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Zan U, Topaktas M, Istifli EA (2011) *In vitro* genotoxicity of Rocuronium Bromide in human peripheral lymphocytes. Cytotechnol. 63(3):239-245 PMID 21253831

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