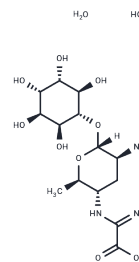


Kasugamycin hydrochloride hydrate

Chemical Properties

CAS No. :	200132-83-8
Formula:	C ₁₄ H ₂₈ ClN ₃ O ₁₀
Molecular Weight:	433.84
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	Kasugamycin hydrochloride hydrate (Ksg (hydrochloride hydrate))(Ksg) specifically inhibits translation initiation of canonical but not of leaderless messenger RNAs. Ksg inhibition is thought to occur by direct competition with initiator transfer RNA
Targets(IC50)	Antibacterial, Antibiotic

Solubility Information

Solubility	H ₂ O: 72.86 mg/mL (167.94 mM), Sonication is recommended. DMSO: < 1 mg/mL (insoluble or slightly soluble), Sonication and heating are recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.305 mL	11.525 mL	23.050 mL
5 mM	0.461 mL	2.305 mL	4.610 mL
10 mM	0.2305 mL	1.1525 mL	2.305 mL
50 mM	0.0461 mL	0.2305 mL	0.461 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

Christian Lange , Matthias Lehr , Karolin Zerulla. Effects of Kasugamycin on the Translatome of Escherichia Coli. PLoS One. 2017 Jan 12;12(1):e0168143.

Schuwirth BS, et al. Structural analysis of kasugamycin inhibition of translation. Nat Struct Mol Biol. 2006 Oct;13(10):879-86.

Schlutzen F, et al. The antibiotic kasugamycin mimics mRNA nucleotides to destabilize tRNA binding and inhibit canonical translation initiation. Nat Struct Mol Biol. 2006 Oct;13(10):871-8.

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