# Kasugamycin hydrochloride

**Cat. No.:** HY-B1864A

**CAS No.:** 19408-46-9

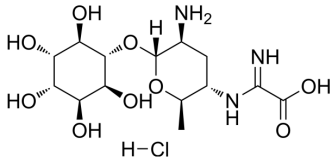
**Molecular Formula:** $C_{14}H_{26}ClN_3O_9$

**Molecular Weight:** 415.82

**Target:** Bacterial; Antibiotic

**Pathway:** Anti-infection

**Storage:** 4°C, sealed storage, away from moisture and light
* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)




## SOLVENT & SOLUBILITY

**In Vitro**

DMSO : 8.33 mg/mL (20.03 mM; ultrasonic and warming and heat to 60°C)

| Preparing Stock Solutions | Solvent / Mass / Concentration | 1 mg | 5 mg | 10 mg |
|---|---|---|---|---|
| | 1 mM | 2.4049 mL | 12.0244 mL | 24.0489 mL |
| | 5 mM | 0.4810 mL | 2.4049 mL | 4.8098 mL |
| | 10 mM | 0.2405 mL | 1.2024 mL | 2.4049 mL |

Please refer to the solubility information to select the appropriate solvent.

## BIOLOGICAL ACTIVITY

**Description**

Kasugamycin hydrochloride (Ksg hydrochloride) is an antibiotic which binds both the 30S and 70S ribosome but not isolated 50S subunits. Kasugamycin hydrochloride (Ksg hydrochloride) mimics mRNA nucleotides to destabilize tRNA binding and inhibit canonical translation initiation[1][2].

## CUSTOMER VALIDATION

- Front Mol Biosci. 2021 Apr 7;8:640356.

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## REFERENCES

[1]. Schluenzen 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.

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



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