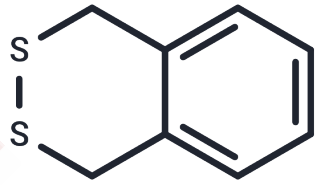
# Data Sheet (Cat.No.T12696)

TargetMol

RD3-0028

## Chemical Properties



CAS No. : 3886-39-3

Formula: C8H8S2

Molecular Weight: 168.28

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 | RD3-0028 is a potent and selective RSV replication inhibitor with an EC50 of 4.5 μM. |
| Targets(IC50) | Others,RSV |
| In vitro | RD3-0028 exhibits an effective concentration (EC50) of 4.5 μM and a significantly lower cytotoxicity, with a 50% cytotoxic concentration (CC50) of 271.0μM, outperforming ribavirin. It lacks inhibitory effects on the replication of measles virus, influenza A virus, herpes simplex virus types 1 and 2, and human cytomegalovirus. However, RD3-0028 effectively inhibits various RSV strains at concentrations ranging from 4.5 to 11.0 μM, as determined by the MTT method, demonstrating superior efficacy to ribavirin with lower EC50 values against these strains[1]. |
| In vivo | Aerosols from reservoirs containing RD3-0028 (7 mg/mL; 2 h twice daily for 3 days) significantly reduce the pulmonary titer in RSV-infected mice, demonstrating that the minimal effective dose of RD3-0028 is considerably less than that of ribavirin, the only compound currently available for RSV disease. |

Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|---|---|---|---|
| 1 mM | 5.9425 mL | 29.7124 mL | 59.4248 mL |
| 5 mM | 1.1885 mL | 5.9425 mL | 11.885 mL |
| 10 mM | 0.5942 mL | 2.9712 mL | 5.9425 mL |
| 50 mM | 0.1188 mL | 0.5942 mL | 1.1885 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

Watanabe W, et al. Novel anti-respiratory syncytial(RS) viral compounds: benzodithiin derivatives. Biochem Biophys Res Commun. 1998 Aug 28;249(3):922-6.
Sudo K, et al. Efficacy of RD3-0028 aerosol treatment against respiratory syncytial virus infection in immunosuppressed mice. Antimicrob Agents Chemother. 1999 Apr;43(4):752-7.
Sudo K, et al. Pharmacokinetics of a benzodithiin (RD3-0028) following aerosol treatment in rat.



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