

RD3-0028

Catalog No: tcsc0018437



Available Sizes

Size: 1mg

Size: 5mg

Size: 10mg



Specifications

CAS No:

3886-39-3

Formula:

$C_8H_8S_2$

Pathway:

Anti-infection

Target:

RSV

Purity / Grade:

>98%

Solubility:

10 mM in DMSO

Observed Molecular Weight:

168.28

Product Description

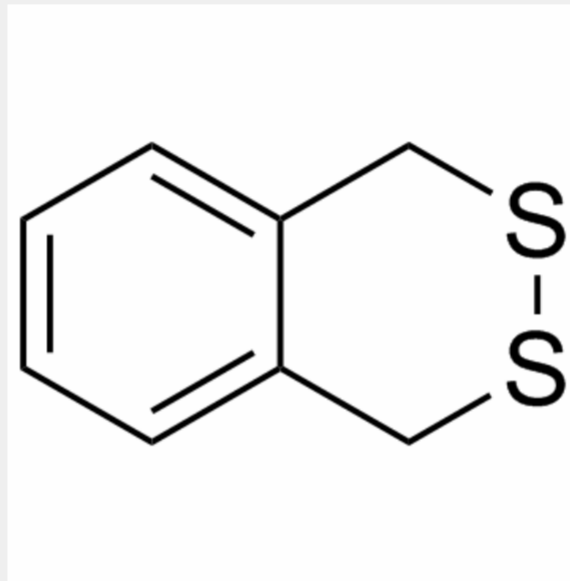
RD3-0028 is a potent and selective inhibitor of **RSV** replication with an **EC₅₀** of 4.5 μM.

IC50 & Target: EC50: 4.5 μM (RSV)^[1]

In Vitro:

RD3-0028 has a 50% effective concentration of 4.5 μM and a 50% cytotoxic concentration of 271.0 μM which is superior to that of ribavirin. RD3-0028 inhibits different RSV strains at a low concentration (4.5-11.0 μM) using the MTT method. Using the MTT method, EC_{50} values of RD3-0028 against tested strains are lower than those of ribavirin. RD3-0028 does not inhibit the replication of measles virus, influenza A virus, herpes simplex virus types 1 and 2, or human cytomegalovirus^[1].

In Vivo: Aerosols generated from reservoirs containing RD3-0028 (7 mg/mL) administered for 2 h twice daily for 3 days significantly reduces the pulmonary titer of RSV-infected mice. It is clear that the minimal effective dose of RD3-0028 for RSV-infected mice is significantly less than that of ribavirin, the only compound currently available for use against RSV disease. Furthermore, the RD3-0028 aerosol administration protect the lungs of infected, CYP-treated mice against tissue damage, as evidenced by the preservation of the lung architecture and a reduction in pulmonary inflammatory infiltrates. RD3-0028 aerosol is not toxic for mice at the therapeutic dose^[2]. The plasma concentration of RD3-0028 is maintained at the same level from 5 min to 1 h, and decreases with a half-life of 2.2 h for 1 \pm 8 h. The excretion of radioactivity in the urine and faeces at 24 h after aerosol treatment is 89.3 and 4.5%, respectively, indicating that almost all the radioactivity is rapidly excreted in the urine. The excretion of total radioactivity is 98.9% within 168 h^[3].



All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!