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Produktinformation

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Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

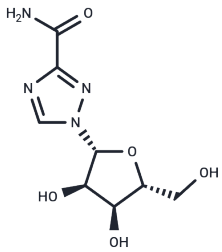
linkedin.com/company/szaboscandic

Data Sheet (Cat.No.T0684)

TargetMol

Ribavirin

Chemical Properties



CAS No. : 36791-04-5

Formula: C8H12N4O5

Molecular Weight: 244.2

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Biological Description

Description	Ribavirin (Tribavirin) is a synthetic nucleoside analog of ribofuranose with activity against hepatitis C virus and other RNA viruses.
Targets(IC50)	Dehydrogenase,HCV Protease,DNA/RNA Synthesis,Antibiotic,AChR,RSV
In vivo	ALT, AST activities and bilirubin levels are significantly loared by administration of JAT in combination with interferon and ribavirin ($p<0.01$). JAT, interferon or ribavirin alone with CCl4, livers appear to exhibit some liver protection against CCl4 as evident by the presence of normal hepatic cords, absence of necrosis and lesser fatty infiltration. Groups treated with JAT, Peg-interferon and ribavirin separately or in combination shows reduction in the expression of TGF- β and Bax. In the group treated by triple combination of interferon, ribavirin, and JAT, the expression level of p53 is markedly reduced[6]. Ribavirin capsules (400 mg of ribavirin)-treated Wistar rats show a significant decrease in activin-A and significant increase in follistatin at the serum and liver levels. Ribavirin has strong antiviral activity only when ribavirin is combined with either IFN-α or Peg-IFN-α[7]. Ribavirin (40 mg/kg, p.o.) significantly improves the antiviral efficacy of CM-10-18 in mice. Ribavirin inhibits DENV virus infection in cultured cells, but it is ineffective in reducing viremia in monotherapy[8].
Cell Research	The effect of Ribavirin on microglial cell viability is evaluated by the sulforhodamine B (SRB) chemosensitivity assay. Briefly, LPS-stimulated microglial cells are incubated for 48 h in the presence or absence of Ribavirin. Afterward, the cells are fixed in 10% (w/v) trichloroacetic acid for 1 h at 4°C, rinsed in tap water and stained with 0.4% (w/v) SRB in 1% acetic acid (100 µL/well) for 30 min at room temperature (RT). The cells are then rinsed three times in 1% acetic acid to remove the unbound stain. The protein bound stain is extracted with 200 µL 10 mM Tris base (pH 10.5) per well. The optical density is read at 540 nm, with correction at 670 nm. The results are presented as percentage of the control (non-stimulated/untreated microglial cells), that is arbitrarily set to 100%.

Solubility Information

Solubility	H2O: 24.4 mg/mL (100 mM), DMSO: 45 mg/mL (184.28 mM), (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.095 mL	20.475 mL	40.950 mL
5 mM	0.819 mL	4.095 mL	8.190 mL
10 mM	0.4095 mL	2.0475 mL	4.095 mL
50 mM	0.0819 mL	0.4095 mL	0.819 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.

Reference

Aljabr W, et al. Investigating the Influence of Ribavirin on Human Respiratory Syncytial Virus RNA Synthesis by Using a High-Resolution Transcriptome Sequencing Approach. J Virol. 2016 Apr 29;90(10):4876-4888.