

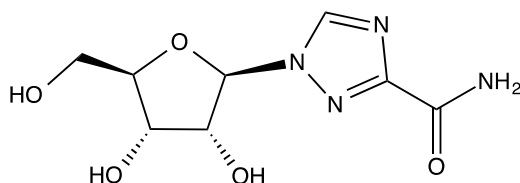
Catalog # 10-1281

Ribavirin

CAS# 36791-04-5

1-(β -D-Ribofuranosyl)-1H-1,2,4-triazole-3-carboxamide

Lot # FBS1030



Ribavirin is a clinically useful antiviral medication for Hepatitis C, viral hemorrhagic fevers and other RNA and DNA viruses. The exact mechanism of its antiviral activity is uncertain. Various proposals include inhibition of viral polymerase¹, RNA mutagenesis², and inosine monophosphate dehydrogenase (IMPDH) inhibition³. Sensitizes tumor cells to anticancer agents 5-fluorouracil⁵ and doxorubicin⁶ via inhibition of eIF4E. Displays efficacy against atypical teratoid/rhabdoid tumors⁷ and inhibits glioma cell growth⁸.

- 1) Bougie and Bisailon (2003), *Initial binding of the broad spectrum antiviral nucleoside ribavirin to the hepatitis C virus RNA polymerase*; J. Biol. Chem. **278** 52471
- 2) Crotty *et al.* (2000), *The broad-spectrum antiviral ribonucleoside ribavirin is an RNA virus mutagen*; Nat.Med. **6** 1375
- 3) Zhou *et al.* (2003), *The effect of ribavirin and IMPDH inhibitors on hepatitis C virus subgenomic replicon RNA*; Virology **310** 333
- 4) Couee and Tipton (1990), *Inhibition of ox brain glutamate by perphenazine*; Biochem. Pharmacol. **39** 1167
- 5) Hu *et al.* (2019), *Ribavirin sensitizes nasopharyngeal carcinoma to 5-fluorouracil through suppressing 5-fluorouracil-induced ERK-dependent-eIF4E activation*; Biochem. Biophys. Res. Commun. **513** 862
- 6) Tan *et al.* (2018), *Ribavirin augments doxorubicin's efficacy in human hepatocellular carcinoma through inhibiting doxorubicin-induced eIF4E activation*; J. Biochem. Mol. Toxicol. **32**(1) doi: 10.1002
- 7) Casaos *et al.* (2018), *Ribavirin as a potential therapeutic for atypical teratoid/rhabdoid tumors*; Oncotarget; **9** 8054
- 8) Volpin *et al.* (2017) *Use of an anti-viral drug, Ribavirin, as an anti-glioblastoma therapeutic*; Oncogene, **36** 3037

PHYSICAL DATA

Molecular Weight:	244.21
Molecular Formula:	C ₈ H ₁₂ N ₄ O ₅
Purity:	>98% by TLC
	NMR: (Conforms)
Solubility:	DMSO (25 mg/mL) and water (25mg/mL)
Physical Description:	White solid
Storage and Stability:	Store as supplied at -20°C for up to 1 year from the date of purchase. Solutions in DMSO or distilled water may be stored at -20°C for up to 3 months.

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