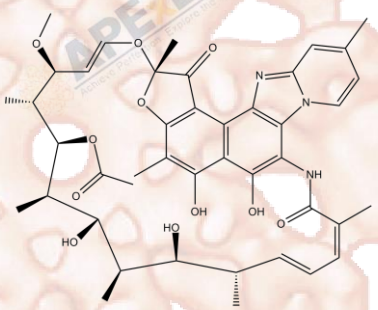
Product Data Sheet

Rifaximin (Xifaxan)



Cat. No.: A8512
CAS No.: 80621-81-4
Formula: C43H51N3O11
M.Wt: 785.88
Synonyms:
Target: DNA Damage/DNA Repair
Pathway: DNA Synthesis
Storage: Store at -20°C

Solvent & Solubility

In Vitro

⩾83.33 mg/mL in DMSO; insoluble in H2O; ⩾30 mg/mL in EtOH with ultrasonic

Preparing Stock Solutions

Concentration \ Mass / Solvent	1mg	5mg	10mg
1 mM	1.2725 mL	6.3623 mL	12.7246 mL
5 mM	0.2545 mL	1.2725 mL	2.5449 mL
10 mM	0.1272 mL	0.6362 mL	1.2725 mL

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

Biological Activity

Shortsummary	RNA synthesis inhibitor, PXR activator
IC_{50} & Target	

In Vitro

Cell Viability Assay

Cell Line:	CRL1831 cells
Preparation method:	The solubility of this compound in DMSO is > 39.3mg/mL. General tips for obtaining a higher concentration: Please warm the tube at 37 °C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below - 20 °C for several months.
Reacting conditions:	50 μM; 3 hrs

	Applications:	Rifaximin suppressed LPS-induced NF-κB DNA binding activity, thus reducing cytokine and chemokine expression. Besides, Rifaximin also increased the degree of physical association between PXR and NF-κB p65 after LPS stimulation.
In Vivo	**Animal experiment**	
	Animal models:	hPXR mice
	Dosage form:	1 mg/kg/day; p.o.; 6 months
	Applications:	In hPXR mice, Rifaximin gradually enhanced hepatocellular fatty degeneration without nodular hyperplasia in a time-dependent manner. Besides, compared to hPXR mice treated with Rifaximin for 1 week, those after 1 month, 3 month and 6 month administration of Rifaximin showed significant decreases in serum triglycerides and serum free fatty acid. However, in hPXR mice treated with 1 week, 1 month, 3 month and 6 month of Rifaixmin, there was no substantial difference on serum ALT and AST activity among the 4 groups.
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Product Citations

See more customer validations on www.apexbt.com.

References

[1]. Mencarelli A, Renga B, Palladino G, et al. Inhibition of NF-κB by a PXR-dependent pathway mediates counter-regulatory activities of rifaximin on innate immunity in intestinal epithelial cells[J]. European journal of pharmacology, 2011, 668(1): 317-324.

[2]. Cheng J, Krausz K, Tanaka N, et al. Chronic exposure to rifaximin causes hepatic steatosis in pregnane X receptor-humanized mice[J]. Toxicological Sciences, 2012: kfs211

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APExBIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.

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