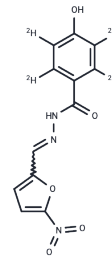


Nifuroxazide-D4

Chemical Properties

CAS No. :	1188487-83-3
Formula:	C ₁₂ H ₅ D ₄ N ₃ O ₅
Molecular Weight:	279.24
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	Nifuroxazide-D4 is intended for use as an internal standard for the quantification of nifuroxazide by GC- or LC-MS. Nifuroxazide (T1563) is a nitrofurantoin antibiotic. It is active against strains of the enteropathogenic bacteria <i>C. jejuni</i> , <i>Salmonella</i> , <i>Y. enterocolitica</i> , <i>Shigella</i> , and <i>E. coli</i> . It inhibits quorum sensing and virulence factor production in <i>P. aeruginosa</i> . Nifuroxazide (T1563) inhibits STAT3 activity in a reporter assay and decreases viability of U266 and INA-6 myeloma cells, which have constitutive STAT3 phosphorylation, with EC ₅₀ values of approximately 4.5 μM for both. It also decreases viability, migration, and invasion of, and induces apoptosis in, MCF-7, 4T1, and MDA-MB-231 breast cancer cells. Nifuroxazide (T1563) reduces tumor growth and prevents pulmonary metastasis in a 4T1 murine mammary carcinoma model. It also reduces diarrhea, weight loss, and colon inflammation in a rat model of acetic acid-induced ulcerative colitis.
Targets(IC50)	Antibacterial, Antibiotic, STAT

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.5811 mL	17.9057 mL	35.8115 mL
5 mM	0.7162 mL	3.5811 mL	7.1623 mL
10 mM	0.3581 mL	1.7906 mL	3.5811 mL
50 mM	0.0716 mL	0.3581 mL	0.7162 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.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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