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Produktinformation

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- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

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Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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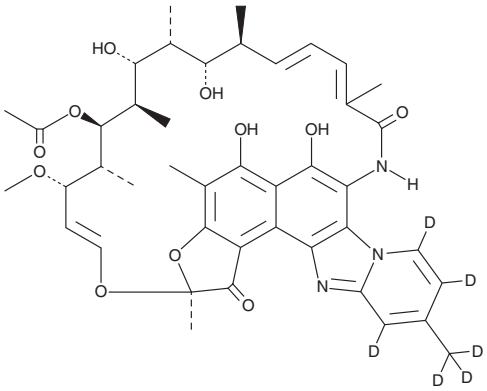
PRODUCT INFORMATION

Rifaximin-d_6

Item No. 26101



CAS Registry No.: 1262992-43-7
Formal Name: (2S,18E,28E)-25S-(acetyloxy)-5,6,21S,23R-tetrahydroxy-27S-methoxy-2,4,11,16Z,20S,22R,24R,26R-octamethyl-2,7-(epoxypentadeca[1,11,13]trienimino)benzofuro[4,5-e]pyrido[1,2-a]benzimidazole-d_6-1,15(2H)-dione
MF: $C_{43}H_{45}D_6N_3O_{11}$
FW: 791.9
Chemical Purity: ≥98% (Rifaximin)
Deuterium Incorporation: ≥99% deuterated forms (d_1-d_6); ≤1% d_0
Supplied as: A solid
Storage: -20°C
Stability: ≥2 years

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Rifaximin-d_6 is intended for use as an internal standard for the quantification of rifaximin (Item No. 16131) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated *versus* unlabeled).

Rifaximin-d_6 is supplied as a solid. A stock solution may be made by dissolving the rifaximin-d_6 in the solvent of choice, which should be purged with an inert gas. Rifaximin-d_6 is slightly soluble in chloroform and methanol.

Description

Rifaximin is an antibiotic derived from rifamycin SV (Item No. 21441) that inhibits the growth of a variety of Gram-positive and Gram-negative bacteria *in vitro*, including *Staphylococcus*, *Streptococcus*, *Enterococcus*, *H. influenzae*, and *N. gonorrhoeae* (MIC_{50}s = ≤0.015, <0.12, 0.25-2, 0.25, and 0.25 µg/mL, respectively).[1] It is a pregnane X receptor (PXR) agonist (EC_{50} = ~20 µM) that reduces colonic damage, rectal bleeding, and diarrhea in PXR-humanized, but not wild-type or *Pxr*-null, mice with inflammatory bowel disease (IBD) induced by dextran sulfate sodium (DSS; Item No. 23250).[2,3] Rifaximin exhibits minimal intestinal absorption after oral administration and is, therefore, effective in eliminating bacteria in the gastrointestinal system.[4,5] Formulations containing rifaximin have been used in the treatment of traveler's diarrhea caused by noninvasive *E. coli*, irritable bowel syndrome with diarrhea (IBS-D), and to reduce the risk of recurrence of overt hepatic encephalopathy.

References

1. Hoover, W.W., Gerlach, E.H., Hoban, D.J., *et al. Diagn. Microbiol. Infect. Dis.* **16(2)**, 111-118 (1993).
2. Ma, X., Shah, Y.M., Guo, G.J., *et al. J. Pharmacol. Exp. Ther.* **322(1)**, 391-398 (2007).
3. Cheng, J., Shah, Y.M., Ma, X., *et al. J. Pharmacol. Exp. Ther.* **335(1)**, 32-41 (2010).
4. Alajbegovic, S., Sanders, J.W., Atherly, D.E., *et al. Syst. Rev.* **1:39** (2012).
5. Song, M. and Ang, T.L. *World J. Gastroenterol.* **20(6)**, 1517-1528 (2014).

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