

Product Datasheet

Solithromycin (orb1224053)

Catalog Number	orb1224053
Category	Small Molecules
Description	A novel fluoroketolide with lower MICs than those of telithromycin and macrolides; binds to the large 50S subunit of the ribosome and inhibits protein biosynthesis; exhibits MICs of 7.5, 40, and 125 ng/ml for Streptococcus pneumoniae, Staphylococcus aureus, and Haemophilus influenzae, respectively. Bacterial Infection Approved (In Vitro): The IC₅₀s values for Solithromycin on TNFα and CXCL8 release are 41.6 μM and 78.2 μM, respectively. Solithromycin markedly reduces MMP9 activity, with an IC₅₀ of 14.9 μM. Solithromycin (0-333 μM; 72 hours; U937 and PBMC cells) suppresses lipopolysaccharide-induced TNFα release and phorbol 12-myristate 13-acetate (PMA)-induced matrix metalloproteinase 9 (MMP9) activity, and does not affect cell viability in monocytic U937 and PBMC cells. (In Vivo): Solithromycin (100 mg/kg; oral administration; every day; for 8 days; C57BL/6J mice) treatment inhibits inflammatory cells accumulation and pro-MMP9 production in cigarette smoke-exposed mice.
Target	Antibacterial
Purity	>98% (HPLC)
MW	845.0088
Target Areas	Antibiotic
Solubility (25°C)	DMSO: ≥ 32 mg/mL
CAS Number	760981-83-7
Formula	C ₄₃ H ₆₅ FN ₆ O ₁₀

Biorbyt Ltd.

7 Signet Court, Swann Road
Cambridge
CB5 8LA
United Kingdom

Email: info@biorbyt.com, support@biorbyt.com
Phone: +44 (0)1223 859353 | Fax: +1 (415) 651-8558

Biorbyt LLC

68 TW Alexander Drive
Research Triangle Park
Durham
NC 27713-2847
United States

Email: info@biorbyt.com, support@biorbyt.com
Phone: +1 (415) 906-5211 | Fax: +1 (415) 651-8558

SMILESCC[C@@H]1[C@@]2([C@@H]([C@@H](C=O)[C@@H](C[C@@]([C@@H]([C@H](C(=O)[C@@](C(=O)O1)(C)F)C)O[C@H]3[C@@H]([C@H](C[C@H](O3)C)N(C)C)O)(C)OC)C)N(C(=O)O2)CCCCN4C=C(N=N4)C5=CC(=CC=C5)N)C**Chemical Name**

2H-Oxacyclotetradecino[4,3-d]oxazole-2,6,8,14(1H,7H,9H)-tetrone, 1-[4-[4-(3-aminophenyl)-1H-1,2,3-triazol-1-yl]butyl]-4-ethyl-7-fluorooctahydro-11-methoxy-3a,7,9,11,13,15-hexamethyl-10-[[3,4,6-trideoxy-3-(dimethylamino)-β-D-xylohexopyranosyl]oxy]-, (3aS,

Storage

Storage temperature: -20°C. Stability: ≥ 2 years

Note

For research use only

Expiration Date

12 months from date of receipt.

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7 Signet Court, Swann Road
Cambridge
CB5 8LA
United Kingdom

Email: info@biorbyt.com, support@biorbyt.com

Phone: [+44 \(0\)1223 859353](tel:+44(0)1223859353) | Fax: [+1 \(415\) 651-8558](tel:+1(415)651-8558)

Biorbyt LLC

68 TW Alexander Drive
Research Triangle Park
Durham
NC 27713-2847
United States

Email: info@biorbyt.com, support@biorbyt.com

Phone: [+1 \(415\) 906-5211](tel:+1(415)906-5211) | Fax: [+1 \(415\) 651-8558](tel:+1(415)651-8558)