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Rapamycin

产品编号： D50726

CAS: 53123-88-9

分子式： C51H79NO13

纯度： ≥98%

InChi: InChI=1S/C51H79NO13/c1-30-16-12-11-13-17-31(2)42(61-8)28-38-21-19-36(7)51(60,65-38)48(57)49(58)52-23-15-14-18-39(52)50(59)64-43(33(4)26-37-20-22-40(53)44(27-37)62-9)29-41(54)32(3)25-35(6)46(56)47(63-10)45(55)34(5)24-30/h11-13,16-17,25,30,32-34,36-40,42-44,46-47,53,56,60H,14-15,18-24,26-29H2,1-10H3/b13-11-,16-12-,31-17-,35-25-/t30-,32-,33-,34-,36-,37+,38+,39+,40-,42+,43+,44-,46-,47+,51-/m1/s1

InChi Key: QFJCIRLUMZQUOT-BLBZBZKNSA-N

Smiles: CC1=C[C@@H](C)C(=O)C[C@H](OC(=O)[C@@H]2CCCCN2C(=O)C(=O)[C@]2(O)O[C@H](C[C@H](OC)C(C)=CC=CC=C[C@@H](C)C[C@@H](C)C(=O)[C@H](OC)[C@@H]1O)CC[C@H]2C)[C@H](C)C[C@H]1C[C@@H](OC)[C@H](O)CC1 |c:1,t:32,34,36|

外观： 固体粉末

作用通路： Antibiotic

溶解性： DMSO up to 50 mM

保存条件： Store in dry, dark place for one year.

产品介绍： Rapamycin is a potent and selective mTOR inhibitor. Rapamycin, in complex with the cytosolic protein FK-binding protein 12 (FKBP12), inhibits mTOR Complex 1 (mTORC1) by binding to the FRB domain of mTor. Given the central roles mTor plays, Rapamycin showed diverse activities, including anti-proliferative effects in cancer cells, immunosuppressive effect, lifespan extension in mice, improved cognition in the mouse model of autism and Alzheimer, and inducing autophagy.

基本信息：

CAS：53123-88-9

分子式：C51H79NO13

分子量：914.18

MDL：MFCD00867594

纯度：≥98%

外观/性状：类白色固体

熔点：183-185°C

沸点：973.017 °C at 760 mmHg

溶解性：溶于DMSO, 甲醇，极微溶于水。

敏感性：对热敏感

产品简介：

雷帕霉素 (Rapamycin) 是大环内酯类抗生素。是一种有效且特异性的 mTOR 抑制剂，作用于 HEK293 细胞，抑制 mTOR，IC50 为 0.1 nM。Rapamycin 与 FKBP12 结合且抑制 mTORC1。Rapamycin 还是一种自噬 (autophagy) 激活剂，免疫抑制剂。

作用靶点：mTOR; FKBP; Fungal; Autophagy; Endogenous Metabolite; Antibiotic;

作用通路：PI3K/Akt/mTOR; Apoptosis; Autophagy; Immunology/Inflammation; Anti-infection; Metabolic Enzyme/Protease;