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Produktinformation



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Lieferung & Zahlungsart

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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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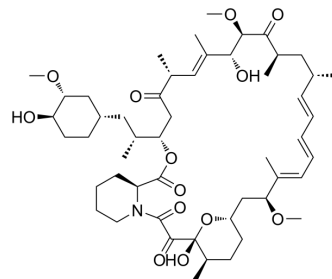
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Rapamycin (Standard)

Cat. No.:	HY-10219R
CAS No.:	53123-88-9
Molecular Formula:	C ₅₁ H ₇₉ NO ₁₃
Molecular Weight:	914.17
Target:	FKBP; Autophagy; Bacterial; mTOR; Endogenous Metabolite; Fungal; Antibiotic
Pathway:	Apoptosis; Autophagy; Immunology/Inflammation; Anti-infection; PI3K/Akt/mTOR; Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Rapamycin (Standard) is the analytical standard of Rapamycin. This product is intended for research and analytical applications. Rapamycin (Sirolimus; AY 22989) is a potent and specific mTOR inhibitor with an IC ₅₀ of 0.1 nM in HEK293 cells. Rapamycin binds to FKBP12 and specifically acts as an allosteric inhibitor of mTORC1 ^[1] . Rapamycin is an autophagy activator, an immunosuppressant ^[2] .
IC₅₀ & Target	IC50: 0.1 nM (mTOR) ^[1]

REFERENCES

- [1]. Edwards SR, et al. The rapamycin-binding domain of the protein kinase mammalian target of rapamycin is a destabilizing domain. *J Biol Chem*, 2007, 282(18), 13395-13401.
- [2]. Rangaraju S, et al. Rapamycin activates autophagy and improves myelination in explant cultures from neuropathic mice. *J Neurosci*. 2010 Aug 25;30(34):11388-97.
- [3]. Niu H, et al. Rapamycin potentiates cytotoxicity by RP-56976 possibly through downregulation of Survivin in lung cancer cells. *J Exp Clin Cancer Res*. 2011 Mar 10;30:28.
- [4]. Zhang JW, et al. Metformin synergizes with rapamycin to inhibit the growth of pancreatic cancer in vitro and in vivo. *Oncol Lett*. 2018 Feb;15(2):1811-1816.

Caution: Product has not been fully validated for medical applications. For research use only.

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