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Produktinformation



Forschungsprodukte & Biochemikalien



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Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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See the following pages for more information!



Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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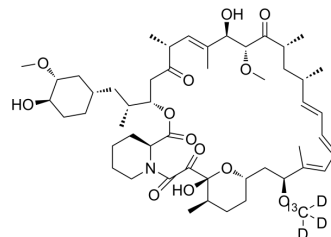
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Rapamycin-¹³C,₃D₃

Cat. No.:	HY-10219S1
Molecular Formula:	C ₅₀ ¹³ CH ₇₆ D ₃ NO ₁₃
Molecular Weight:	918.18
Target:	Isotope-Labeled Compounds
Pathway:	Others
Storage:	-20°C, protect from light, stored under nitrogen * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light, stored under nitrogen)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 125 mg/mL (136.14 mM; Need ultrasonic and warming)

	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	1.0891 mL	5.4456 mL	10.8911 mL
	5 mM	0.2178 mL	1.0891 mL	2.1782 mL
	10 mM	0.1089 mL	0.5446 mL	1.0891 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

Rapamycin-¹³C,₃D₃ (Sirolimus-¹³C,₃D₃; AY-22989-¹³C,₃D₃) is the ¹³C and deuterium labeled Rapamycin (HY-10219)^[1]. Rapamycin (Sirolimus; AY 22989) is a potent and specific mTOR inhibitor with an IC₅₀ of 0.1 nM in HEK293 cells. Rapamycin binds to FKBP12 and specifically acts as an allosteric inhibitor of mTORC1^[2]. Rapamycin is an autophagy activator, an immunosuppressant^[3].

In Vitro

Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs^[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. Ann Pharmacother. 2019 Feb;53(2):211-216.

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

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