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Lieferung & Zahlungsart

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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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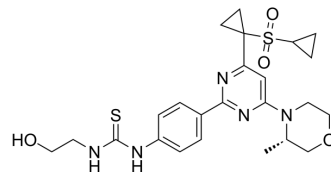
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AZD3147

Cat. No.:	HY-12652		
CAS No.:	1101810-02-9		
Molecular Formula:	C ₂₄ H ₃₁ N ₅ O ₄ S ₂		
Molecular Weight:	517.66		
Target:	mTOR		
Pathway:	PI3K/Akt/mTOR		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 125 mg/mL (241.47 mM; Need ultrasonic)

Solvent	Mass	Concentration		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	1.9318 mL	9.6588 mL	19.3177 mL
	5 mM	0.3864 mL	1.9318 mL	3.8635 mL
	10 mM	0.1932 mL	0.9659 mL	1.9318 mL

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

BIOLOGICAL ACTIVITY

Description

AZD3147 is a potent, orally active, selective dual inhibitor of mTORC1 and mTORC2 with an IC₅₀ value of 1.5 nM. AZD3147 also has a selective effect on PI3K^[1].

IC₅₀ & Target

mTORC1

mTORC2

In Vitro

AZD3147 (0-50 nM, 1 h) can alleviate fibroblast growth factor (FGF)-mediated cilia extension at concentrations above 1.5 nM in NIH3T3 cells^[2].

AZD3147 inhibits cell viability of neuroblastoma cell lines Kelly and IMR-32 with the IC₅₀ values of 0.88 nM and 662.4 nM, respectively^[3].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

The pharmacokinetic parameters of AZD3147^[1].

Parameter	Mouse	Dog

CL (mL/min/kg)	78	16
V _{ss} (L/kg)	2.3	2.2
t _{1/2} (h)	0.9	1.9
F%	61	73

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

- [1]. Kurt G Pike, et al. Discovery of AZD3147: a potent, selective dual inhibitor of mTORC1 and mTORC2. *J Med Chem.* 2015 Mar 12;58(5):2326-49.
- [2]. Michaela Kunova Bosakova, et al. Regulation of ciliary function by fibroblast growth factor signaling identifies FGFR3-related disorders achondroplasia and thanatophoric dysplasia as ciliopathies. *Hum Mol Genet.* 2018 Mar 15;27(6):1093-1105.
- [3]. Rebecca Waetzig, et al. Comparing mTOR inhibitor Rapamycin with Torin-2 within the RIST molecular-targeted regimen in neuroblastoma cells. *Int J Med Sci.* 2021 Jan 1;18(1):137-149.

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

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