

AZD 3147

## Chemical Properties

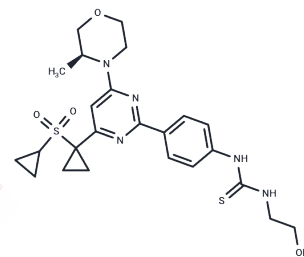
CAS No. : 1101810-02-9

Formula: C<sub>24</sub>H<sub>31</sub>N<sub>5</sub>O<sub>4</sub>S<sub>2</sub>

Molecular Weight: 517.66

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



## Biological Description

Description	AZD 3147 is an inhibitor of mTORC with IC <sub>50</sub> s of 40.7 and 5.75 nM for mTORC1 and mTORC2. AZD 3147 shows IC <sub>50</sub> s of 912, 5495, 9333, and 6310 nM for PI3K $\alpha$ , PI3K $\beta$ , PI3K $\delta$ , and PI3K $\gamma$ , respectively.
Targets(IC <sub>50</sub> )	mTOR
In vitro	In NIH3T3 cells, AZD3147 (1.5-50 nM) alleviates FGF-mediated cilia extension[2]. AZD3147 inhibits cell viability of neuroblastoma cell lines Kelly(IC <sub>50</sub> = 0.88 nM) and IMR-32 (IC <sub>50</sub> = 662.4 nM)[3].
In vivo	AZD3147 shows a CL of 78 mL/min/kg, a V <sub>ss</sub> of 2.3 L/kg, a t <sub>1/2</sub> of 0.9 h and an F of 61% in mice[1].

## Solubility Information

Solubility	Ethanol: 1 mg/mL (1.93 mM),Sonication is recommended. Hydrochloric acid: 100 mg/mL (193.18 mM),Sonication is recommended. DMSO: 46.8 mg/mL (90.41 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
------------	---

### Preparing Stock Solutions

---

	1mg	5mg	10mg
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
50 mM	0.0386 mL	0.1932 mL	0.3864 mL

---

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

### Reference

- Pike, K.G., Morris, J., Ruston, L., et al. Discovery of AZD3147: A potent, selective dual inhibitor of mTORC1 and mTORC2. *J. Med. Chem.* 58(5), 2326-2349 (2015). AZD 3147
- 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.
- Rebecca Waetzig, et al. Comparing mTOR inhibitor Rapamycin with Torin-2 within the R1ST molecular-targeted regimen in neuroblastoma cells. *Int J Med Sci.* 2021 Jan 1;18(1):137-149.

**Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins**

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

Tel:781-999-4286 E\_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481