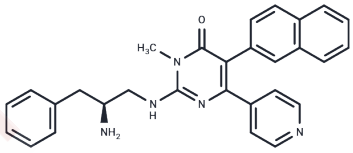
# Data Sheet (Cat.No.T10298L)

TargetMol

AMG-548

## Chemical Properties



CAS No. : 864249-60-5

Formula: C29H27N5O

Molecular Weight: 461.56

Storage: Store at low temperature
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 | AMG-548 is a selective and orally active p38α MAPK inhibitor (Ki = 0.5 nM), with higher selectivity than p38β, p38γ, and p38δ, and can also inhibit the TNFα, CK1δ/ε, and Wnt signalling pathways. |
| Targets(IC50) | Casein Kinase,p38 MAPK,TNF,Wnt/beta-catenin |
| In vitro | **Methods**: U2OS-EFC cells were treated with AMG-548 (0.01-0.1 μM) to investigate its ability to mediate Wnt-3a-induced hDvl2 mobility shift.<br>**Results**: AMG-548 inhibited hDvl2 displacement at micromolar concentrations. [2] |
| In vivo | Experimental data showed that AMG-548 exhibited differentiated pharmacokinetic characteristics in different animal models: the elimination half-life (t1/2) in rats was 4.6 hours, while in canine models it was extended to 7.3 hours. In terms of bioavailability (F value), the compound reached 62% in rats, while it was relatively low at 47% in dogs. These **Results** indicate that AMG-548 has significant species differences, and its metabolic clearance rate and absorption efficiency vary significantly between different animal models. [1] |

## Solubility Information

| | |
|---|---|
| Solubility | DMSO: 80 mg/mL (173.33 mM),Sonication is recommended.<br>(< 1 mg/ml refers to the product slightly soluble or insoluble) |

Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|---|---|---|---|
| 1 mM | 2.1666 mL | 10.8328 mL | 21.6657 mL |
| 5 mM | 0.4333 mL | 2.1666 mL | 4.3331 mL |
| 10 mM | 0.2167 mL | 1.0833 mL | 2.1666 mL |
| 50 mM | 0.0433 mL | 0.2167 mL | 0.4333 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

Lee MR, et al. MAP kinase p38 inhibitors: clinical results and an intimate look at their interactions with p38alphaprotein. Curr Med Chem. 2005;12(25):2979-94.
Verkaar F, et al. Inhibition of Wnt/β-catenin signaling by p38 MAP kinase inhibitors is explained by cross-reactivity with casein kinase Iδ/. Chem Biol. 2011 Apr 22;18(4):485-94.
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