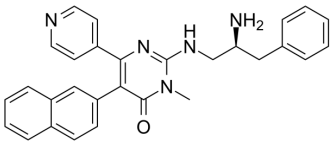
AMG-548

Cat. No.:	HY-108642
CAS No.:	864249-60-5
Molecular Formula:	$C_{29}H_{27}N_5O$
Molecular Weight:	461.56
Target:	p38 MAPK; Casein Kinase
Pathway:	MAPK/ERK Pathway; Cell Cycle/DNA Damage; Stem Cell/Wnt
Storage:	Powder -20°C 3 years In solvent -80°C 6 months -20°C 1 month



BIOLOGICAL ACTIVITY

Description	AMG-548, an orally active and selective p38α inhibitor (K_i=0.5 nM), shows slightly selective over p38β (K_i=36 nM) and >1000 fold selective against p38γ and p38δ. AMG 548 is also extremely potent in the inhibition of whole blood LPS stimulated TNFα (IC_{50}=3 nM)[1]. AMG-548 inhibits Wnt signaling by directly inhibiting Casein kinase 1 isoforms δ and ε[2].

IC_{50} & Target				
	p38α 0.5 nM (Ki)	p38β 3.6 nM (Ki)	p38δ 2600 nM (Ki)	p38γ 4100 nM (Ki)
	dog p38α 5.0 nM (Ki)	JNK1 11480 nM (Ki)	JNK2 39 nM (Ki)	JNK3 61 nM (Ki)
	CK1			

In Vitro	AMG-548 shows >1000 fold selective against p38γ (K_i=2600 nM) and p38δ (k_i=4100 nM). AMG-548 has an modest selectivity against JNK2 (k_i=39 nM) and JNK3 (k_i=61 nM). AMG-548 is also extremely potent in the inhibition of whole blood LPS stimulated TNFa (IC_{50}=3 nM) and IL1b (IC_{50}=7 nM) as well as TNFa induced IL-8 (IC_{50}=0.7 nM) and IL-1b induced IL-6 ($IC50_{50}$ =1.3 nM) in human whole blood[1]. AMG-548 (10 μM) inhibits the hDvl2 shift[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	AMG-548 has rat F of 62% and dog F of 47%. The $t_{1/2}$ is 4.6 hours in rats and 7.3 hours in dogs[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. 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.

[2]. Verkaar F, et al. Inhibition of Wnt/β-catenin signaling by p38 MAP kinase inhibitors is explained by cross-reactivity with casein kinase Iδ/ε. Chem Biol. 2011 Apr 22;18(4):485-94.

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

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA