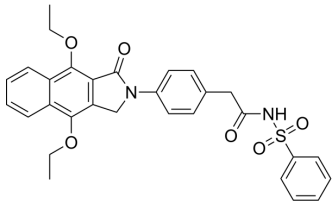
GW627368

Cat. No.:	HY-16963
CAS No.:	439288-66-1
Molecular Formula:	$C_{30}H_{28}N_2O_6S$
Molecular Weight:	544.62
Target:	Prostaglandin Receptor
Pathway:	GPCR/G Protein
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 2 years -20°C 1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (183.61 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	1.8361 mL	9.1807 mL	18.3614 mL
	5 mM	0.3672 mL	1.8361 mL	3.6723 mL
	10 mM	0.1836 mL	0.9181 mL	1.8361 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (4.59 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (4.59 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

GW627368 (GW627368X) is a novel, potent and selective competitive antagonist of prostanoid EP4 receptor with additional human TP receptor affinity, with pK_i values of 7.0 and 6.8 for human prostanoid EP4 and TP receptors respectively[1].

IC_{50} & Target

EP

In Vitro

GW627368 (GW627368X) appears to bind to human prostanoid TP receptors but not the TP receptors of other species[1].
GW627368 (GW627368X) (10 μM) produces 100% inhibition of U-46619 (EC_{100})-induced aggregation (approximate pA2 approximately 7.0) in human washed platelets[1].
GW627368 (GW627368X) is devoid of agonist activity and actually produced a significant and concentration-related reduction in basal cAMP levels with pIC_{50} value of 6.3[1].

	GW627368 (GW627368X) induces inhibition of proliferation and invasion of human SUM149 IBC tumor cells beginning at 0.1 μM, with inhibition of proliferation and invasion of MDA-MB-231 non-IBC cells at higher concentrations[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	GW627368 (GW627368X) (0-15 mg/kg; p.o.; every alternate day for 28 days) shows significant tumor regression characterized by tumor reduction and induction of apoptosis[3]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	6-8 weeks Swiss albino mice[3]
Dosage:	0 mg/kg, 5 mg/kg, 10 mg/kg, 15 mg/kg, 15 mg/kg
Administration:	Oral administration, every alternate day for 28 days
Result:	Displayed anti-tumor and anti-proliferative potential in sarcoma 180 bearing mice.

CUSTOMER VALIDATION

- Nat Immunol. 2023 May;24(5):767-779.
- Nat Commun. 2019 Apr 23;10(1):1888.
- Arterioscler Thromb Vasc Biol. 2018 May;38(5):1115-1124.
- J Cell Physiol. 2018 Nov;233(11):8984-8995.
- Oncol Lett. 2018 Jan;15(1):552-558.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Wilson RJ, et al. GW627368X ((N-{2-[4-(4,9-diethoxy-1-oxo-1,3-dihydro-2H-benzo[f]isoindol-2-yl)phenyl]acetyl} benzene sulphonamide): a novel, potent and selective prostanoid EP4 receptor antagonist. Br J Pharmacol. 2006 Jun;148(3):326-39.

[2]. Robertson FM, et al. Molecular and pharmacological blockade of the EP4 receptor selectively inhibits both proliferation and invasion of human inflammatory breast cancer cells. J Exp Ther Oncol. 2008;7(4):299-312.

[3]. Parida S, et al. Molecular inhibition of prostaglandin E2 with GW627368X: Therapeutic potential and preclinical safety assessment in mouse sarcoma model. Cancer Biol Ther. 2015;16(6):922-32.

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