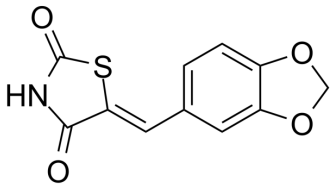
AS-041164

Cat. No.:	HY-118521
CAS No.:	6318-41-8
Molecular Formula:	$C_{11}H_7NO_4S$
Molecular Weight:	249.24
Target:	PI3K
Pathway:	PI3K/Akt/mTOR
Storage:	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 125 mg/mL (501.52 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	4.0122 mL	20.0610 mL	40.1220 mL
	5 mM	0.8024 mL	4.0122 mL	8.0244 mL
	10 mM	0.4012 mL	2.0061 mL	4.0122 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 1.47 mg/mL (5.90 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

AS-041164 is a potent, selective and orally active PI3Kγ isoform inhibitor with an IC_{50} of 70 nM. AS-041164 shows less activity against PI3Kα, PI3Kβ, and PI3Kδ (IC_{50}s of 240 nM, 1.45 μM, and 1.70 μM, respectively). AS-041164 has anti-inflammatory effects[1].

IC_{50} & Target				
	PI3Kγ	PI3Kα	PI3Kβ	PI3Kδ
	70 nM (IC_{50})	240 nM (IC_{50})	1.4 μM (IC_{50})	1.7 μM (IC_{50})

In Vivo

AS-041164 (10-100 mg/kg; oral administration; once) treatment results in the reduction of inflammatory swelling in the model of carrageenan-induced paw edema[1].

AS-041164 (3-100 mg/kg p.o.) treatment dose-dependently decreases r-h regulated on activation normal T cell expressed and secreted (RANTES)-induced neutrophil recruitment in mice. The ED_{50} value for AS-041164 is 27.35 mg/kg. AS-041164 blocks RANTES-induced chemotaxis and reduces the level of AKT phosphorylation[1].

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

Animal Model:	Male Wistar rats (100-150 g) injected with carrageenan[1]
Dosage:	10 mg/kg, 30 mg/kg, 100 mg/kg
Administration:	Oral administration; once
Result:	Induced a significant reduction of paw thickness.

REFERENCES

[1]. Chiara Ferrandi, et al. Phosphoinositide 3-kinase gamma inhibition plays a crucial role in early steps of inflammation by blocking neutrophil recruitment. J Pharmacol Exp Ther. 2007 Sep;322(3):923-30.

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