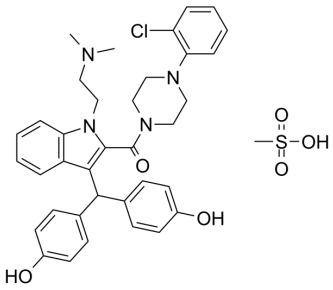
KW-8232

Cat. No.:	HY-100304A
CAS No.:	217813-15-5
Molecular Formula:	$C_{37}H_{41}ClN_4O_6S$
Molecular Weight:	705.26
Target:	Prostaglandin Receptor; SARS-CoV
Pathway:	GPCR/G Protein; Anti-infection
Storage:	4°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 125 mg/mL (177.24 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	1.4179 mL	7.0896 mL	14.1792 mL
	5 mM	0.2836 mL	1.4179 mL	2.8358 mL
	10 mM	0.1418 mL	0.7090 mL	1.4179 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: ≥ 2.08 mg/mL (2.95 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

KW-8232, an orally active anti-osteoporotic agent, and can reduces the biosynthesis of PGE2[1].

IC_{50} & Target

Prostaglandin Receptor[1]

In Vitro

KW-8232 is an anti-osteoporotic agent. KW-8232 reduces the biosynthesis of PGE_2 in mouse osteoblastic cells[1].
KW-8232 possesses anti-viral activity against SARS-CoV-2 (EC_{50} ~1.2 μM)[2].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

KW-8232 (3, 10, 30 mg/kg, p.o.) potently increases the femoral bone mineral density (BMD) of immobilized legs of rats, and affects immobilization-induced abnormal bone turnovrer. KW-8232 markedly decreases urinary calcium excreation in the neurectomized rats only at 30 mg/kg, and highly reduces urinary pyridinoline and deoxypyridionline excretion which are markers of bone resorption in neurectomized rats. KW-8232 inhibits bone loss may be attributed to the lower prostaglandins (PGs)-stimulated bone resorption via regulation of PGE2 production[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	male Sprague-Dawley rats (5-week-old)[1].
Dosage:	1, 3, 10, and 30 mg/kg.
Administration:	Orally once daily beginning 1 day prior to neurectomy for 28 days.
Result:	Decreased urinary calcium excreation in the neurectomized rats only at 30 mg/kg.

REFERENCES

[1]. Uchii M, et al. Effect of KW-8232, a novel anti-osteoporotic agent, on bone loss in sciatic neurectomized rats. Jpn J Pharmacol. 1998 Oct;78(2):241-3.

[2]. Shiwei Wang, et al. A Transferable Deep Learning Approach to Fast Screen Potent Antiviral Drugs against SARS-CoV-2. bioRxiv. 2020.

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