Thioquinapiperifil dihydrochloride

Cat. No.: HY-119611A

CAS No.: 204077-66-7

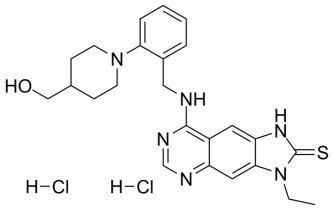
Molecular Formula: $C_{24}H_{30}Cl_2N_6OS$

Molecular Weight: 521.51

Target: Phosphodiesterase (PDE)

Pathway: Metabolic Enzyme/Protease

Storage: 4°C, sealed storage, away from moisture and light
* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 125 mg/mL (239.69 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	1.9175 mL	9.5875 mL	19.1751 mL
	5 mM	0.3835 mL	1.9175 mL	3.8350 mL
	10 mM	0.1918 mL	0.9588 mL	1.9175 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: ≥ 2.08 mg/mL (3.99 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.08 mg/mL (3.99 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Thioquinapiperifil dihydrochloride (KF31327), a potent, selective and non-competitive phosphodiesterase-5 (PDE-5, IC_{50} of 0.074 nM) inhibitor, is used for sexual enhancement study[1][2].

IC_{50} & Target

PDE5	PDE1	PDE2	PDE3
0.074 nM (IC_{50})	380 nM (IC_{50})	670 nM (IC_{50})	38 nM (IC_{50})

PDE4
800 nM (IC_{50})

In Vitro

Thioquinapiperifil can be found in dietary supplements[1].
Thioquinapiperifil dihydrochloride (KF31327) (0.1-10 μM) concentration dependently inhibits platelet aggregation. In the

absence of nitroglycerin, higher concentrations 1 and 10 μM of Thioquinapiperifil dihydrochloride (KF31327) are required to inhibit platelet aggregation[2].

Thioquinapiperifil dihydrochloride (KF31327) and shows significant increase in cyclic GMP at 10 μM. After 5 min incubation, the mean cyclic GMP levels of Thioquinapiperifil dihydrochloride (KF31327)-treated cells is 0.95±0.17 pmol/10^8 cells[2].

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

REFERENCES

[1]. Nahoko Uchiyama, et al. Determination of a new type of phosphodiesterase-5 inhibitor, thioquinapiperifil, in a dietary supplement promoted for sexual enhancement. Chem Pharm Bull (Tokyo). 2008 Sep;56(9):1331-4.

[2]. R Hirose, et al. KF31327, a new potent and selective inhibitor of cyclic nucleotide phosphodiesterase 5. Eur J Pharmacol. 2001 Nov 9;431(1):17-24.

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