Quinagolide hydrochloride

Cat. No.: HY-13736A

CAS No.: 94424-50-7

Molecular Formula: $C_{20}H_{34}ClN_3O_3S$

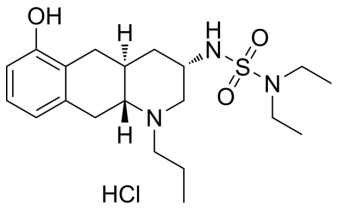
Molecular Weight: 432.02

Target: Dopamine Receptor; Akt

Pathway: GPCR/G Protein; Neuronal Signaling; PI3K/Akt/mTOR

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 : 3.85 mg/mL (8.91 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.3147 mL	11.5735 mL	23.1471 mL
	5 mM	0.4629 mL	2.3147 mL	4.6294 mL
	10 mM	---	---	---

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

BIOLOGICAL ACTIVITY

Description

Quinagolide hydrochloride (CV205-502 hydrochloride) is a selective and orally active dopamine D2 receptor agonist. Quinagolide hydrochloride is an inhibitor of prolactin. Quinagolide hydrochloride down-regulates AKT levels and its phosphorylation. Quinagolide hydrochloride shows antitumor effects, it can be used for the research of cancer[1][2].

In Vitro

Quinagolide hydrochloride (100 nM; 48 h) reduces non-ergot dopamine receptor 2 (DRD2) mRNA expression in ectopic lines [2].

Quinagolide hydrochloride (100 nM; 48 h) inhibits the invasive properties of endometrial mesenchymal stromal cells (E-MSCs)[2].

Quinagolide hydrochloride (100 nM; 24 h) significantly reduces the endothelial differentiation of E-MSCs[2].

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

Western Blot Analysis[2]

Cell Line:	Eutopic and ectopic E-MSCs
Concentration:	100 nM
Incubation Time:	24 h

Result:	Reduced total AKT levels in ectopic E-MSCs and significantly decreased AKT phosphorylation in both eutopic and ectopic cell lines.

In Vivo

Quinagolide hydrochloride (0.03-0.6 mg/kg; s.c. once daily for 2 month) effectively inhibits tumor growth in vivo[1].

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

Animal Model:	Female Wistar-Furth rats bearing SMtTW tumors[1]
Dosage:	0.03-0.6 mg/kg
Administration:	Subcutaneous injection; 0.03-0.6 mg/kg once daily for 2 month
Result:	Induced normalization of plasma PRL levels in all animals, reduced the tumor size compared with the control group at a dose of 0.3 mg/kg. Showed maximal inhibitory effects on PRL secretion and tumor growth at a dose of 0.3 mg/kg.

REFERENCES

[1]. Trouillas J, et al. Inhibitory effects of the dopamine agonists quinagolide (CV 205-502) and bromocriptine on prolactin secretion and growth of SMtTW pituitary tumors in the rat. Endocrinology. 1994 Jan;134(1):401-10.

[2]. Iampietro C, et al. Quinagolide Treatment Reduces Invasive and Angiogenic Properties of Endometrial Mesenchymal Stromal Cells. Int J Mol Sci. 2022 Feb 4;23(3):1775.

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