S32826 disodium

Cat. No.: HY-103267

CAS No.: 1103672-43-0

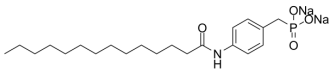
Molecular Formula: $C_{21}H_{34}NNa_2O_4P$

Molecular Weight: 441.45

Target: Phosphodiesterase (PDE)

Pathway: Metabolic Enzyme/Protease

Storage: -20°C, protect from light, stored under nitrogen
* In solvent : -80°C, 6 months; -20°C, 1 month (protect from light, stored under nitrogen)



SOLVENT & SOLUBILITY

In Vitro

Ethanol : 2.4 mg/mL (5.44 mM; Need ultrasonic)
H_2O : < 0.1 mg/mL (ultrasonic;warming;heat to 60°C) (insoluble)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.2653 mL	11.3263 mL	22.6526 mL
5 mM	0.4531 mL	2.2653 mL	4.5305 mL
10 mM	---	---	---

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

BIOLOGICAL ACTIVITY

Description

S32826 disodium is a potent autotaxin inhibitor, with an IC_{50} of 8.8 nM. S32826 disodium shows similar inhibitory effects at various autotaxin isoforms (α, β and γ). S32826 disodium inhibits LPA release from adipocytes[1].

IC_{50} & Target

Autotaxin
8.8 nM (IC_{50})

In Vitro

S32826 (0.001-10 μM; 10 days) disodium dose-dependently inhibits the release of lyso-phosphatidic acid (LPA) by 3T3-F442A adipocytes with an IC_{50} of 90 nM and a maximal inhibition of 80% at 500 nM[1].
S32826 (1 μM; 24 h) disodium inhibits Dexamethasone-induced increases in autotaxin (ATX) mRNA expression in HTM cells and lysoPLD activity in conditioned media. S32826 disodium inhibits Dexamethasone-induced the phosphorylation of MLC and cofilin, mRNA upregulation of COL1A1 and COL4A1, and expression of α-SMA, fibronectin and collagen-1 in the HTM cells [2].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

Topical application of S32826 (2-10 mM; 2 h-5 d) disodium decreases intraocular pressure (IOP) in a dose- and time-

	dependent manner in rabbits[2]. S32826 (-2 μM; single intracameral injection) disodium reduces the IOP in rabbits, with the ocular hypotensive response lasting for more than 48 hrs[2]. S32826 (10 mg/kg; p.o., i.p., s.c., and i.v.) disodium shows poor in vivo stability and/or bioavailability[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Ferry G, et, al. S32826, a nanomolar inhibitor of autotaxin: discovery, synthesis and applications as a pharmacological tool. J Pharmacol Exp Ther. 2008 Dec;327(3):809-19.

[2]. Honjo M, et, al. Role of the Autotaxin-LPA Pathway in Dexamethasone-Induced Fibrotic Responses and Extracellular Matrix Production in Human Trabecular Meshwork Cells. Invest Ophthalmol Vis Sci. 2018 Jan 1;59(1):21-30.

[3]. Iyer P, et, al. Autotaxin-lysophosphatidic acid axis is a novel molecular target for lowering intraocular pressure. PLoS One. 2012;7(8):e42627.

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