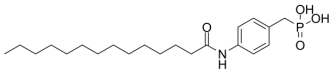
S32826

Cat. No.:	HY-103267A
CAS No.:	1096770-84-1
Molecular Formula:	$C_{21}H_{36}NO_4P$
Molecular Weight:	397.49
Target:	Phosphodiesterase (PDE)
Pathway:	Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	S32826 is a potent autotaxin inhibitor, with an IC_{50} of 8.8 nM. S32826 shows similar inhibitory effects at various autotaxin isoforms (α, β and γ). S32826 inhibits LPA release from adipocytes[1].
IC_{50} & Target	Autotaxin 8.8 nM (IC_{50})
In Vitro	S32826 (0.001-10 μM; 10 days) 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) inhibits Dexamethasone-induced increases in autotaxin (ATX) mRNA expression in HTM cells and lysoPLD activity in conditioned media. S32826 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) decreases intraocular pressure (IOP) in a dose- and time-dependent manner in rabbits[2]. S32826 (-2 μM; single intracameral injection) 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.) 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.

Caution: Product has not been fully validated for medical applications. For research use only.

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