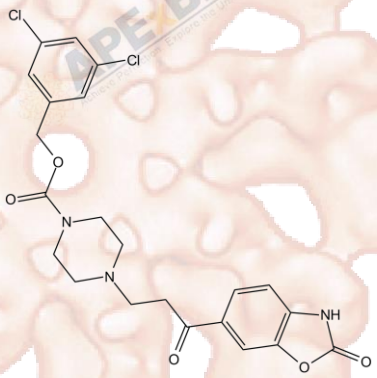
Product Data Sheet

PF-8380



Cat. No.:	A3720
CAS No.:	1144035-53-9
Formula:	C22H21Cl2N3O5
M.Wt:	478.33
Synonyms:	PF 8380;PF8380
Target:	Others
Pathway:	Autotaxin
Storage:	Store at -20°C

Solvent & Solubility

In Vitro

insoluble in H2O; insoluble in EtOH; ⩾20.9 mg/mL in DMSO

Preparing Stock Solutions

Mass / Solvent / Concentration	1mg	5mg	10mg
1 mM	2.0906 mL	10.4530 mL	20.9061 mL
5 mM	0.4181 mL	2.0906 mL	4.1812 mL
10 mM	0.2091 mL	1.0453 mL	2.0906 mL

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

Biological Activity

Shortsummary	Autotaxin inhibitor,potent and specific
IC_{50} & Target	2.8 nM (autotaxin)

In Vitro

Cell Viability Assay

Cell Line:	Mouse glioma GL261 cell lines, Human glioblastoma (U87-MG) cells
Preparation method:	Soluble in DMSO > 20.9mg/mL. General tips for obtaining a higher concentration: Please warm the tube at 37°C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.
Reacting conditions:	1 μM, 45min

	Applications:	Pre-treatment of GL261 and U87-MG cells with 1mM PF-8380 followed by 4 Gy irradiation resulted in decreased clonogenic survival, decreased migration, decreased invasion, and attenuated radiation-inducedAkt(protein kinase B) phosphorylation.
In Vivo	**Animal experiment**	
	Animal models:	Female Lewis rats
	Dosage form:	10, 30, 100 mg/kg, b.i.d, oral administration
	Applications:	The specific inhibitor PF-8380 provided >95% reduction in both plasma and air pouch LPA (lysophosphatidic acid), indicating autotaxin is a major source of LPA during inflammation. PF-8380 reduced inflammatory hyperalgesia with the similiar efficacy as naproxen.
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Product Citations

1. Wang C, Zhang J, et al. "Lysophosphatidic acid induces neuronal cell death viaactivation of asparagine endopeptidase in cerebral ischemia-reperfusion injury." Exp Neurol. 2018 Aug;306:1-9.PMID:29673933

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References

[1]. Bhave SR1, Dadey D, et al, Autotaxin Inhibition with PF-8380 Enhances the Radiosensitivity of Human and Murine Glioblastoma Cell Lines. Front Oncol. 2013 Sep 17;3:236. doi: 10.3389/fonc.2013.00236. eCollection 2013.

[2]. Gierse J1, Thorarensen A, et al, A novel autotaxin inhibitor reduces lysophosphatidic acid levels in plasma and the site of inflammation. J Pharmacol Exp Ther. 2010 Jul;334(1):310-7. doi: 10.1124/jpet.110.165845. Epub 2010 Apr 14.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APExBIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.

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