

Perfluorooctanoic acid

Chemical Properties

CAS No. :	335-67-1
Formula:	C ₈ HF ₁₅ O ₂
Molecular Weight:	414.07
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.



Biological Description

Description	Perfluorooctanoic acid (PFOA) (PFOA) is a persistent and widespread industry-made chemical.
Targets(IC50)	Dehydrogenase
In vitro	Perfluorooctanoic acid exposure impaired the tight junction of corneal cells and caused inflammatory reactions in the retina. Exposure of the cornea to perfluorooctanoic acid contained in particulate matter might induce oxidative stress and inflammation in the retina and represent a risk factor for age-related macular degeneration[1]. PFOA had toxic effects on SMMC-7721 cells, such as inhibiting cell proliferation and inducing apoptosis[2].

Solubility Information

Solubility	DMSO: 240 mg/mL (579.61 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.4151 mL	12.0753 mL	24.1505 mL
5 mM	0.483 mL	2.4151 mL	4.8301 mL
10 mM	0.2415 mL	1.2075 mL	2.4151 mL
50 mM	0.0483 mL	0.2415 mL	0.483 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Tien P T , Lin H J , Tsai Y Y , et al. Perfluorooctanoic acid in indoor particulate matter triggers oxidative stress and inflammation in corneal and retinal cells[J]. Scientific Reports.

Wang Y, Huo Y, Khan A, et al. Possible mechanisms for adverse effects on zebrafish sperm and testes associated with low-level chronic PFOA exposure. Aquatic Toxicology. 2024: 107108.

Ming, Guo, Ping, et al. Perfluorooctanoic acid exposure induces apoptosis in SMMC-7721 hepatocellular cancer cells.[J]. Environmental pollution (Barking, Essex : 1987), 2019.

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