

Perfluorodecanesulfonic Acid

Chemical Properties

CAS No. :	335-77-3
Formula:	C ₁₀ HF ₂₁ O ₃ S
Molecular Weight:	600.15
Storage:	Pure form: -20°C for 3 years In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.



Biological Description

Description	Perfluorodecanesulfonic Acid (PFDS) is a perfluoroalkyl substance that can be found in <i>S. namaycush</i> .
Targets(IC50)	Others
In vitro	Perfluorodecanesulfonic Acid competitively inhibits human placental 3 β -HSD1 in vitro with an IC ₅₀ of 42.52 μ M. Perfluorodecanesulfonic Acid significantly reduces progesterone biosynthesis in JEG-3 cells at 1-10 μ M but has no effect on rat 3 β -HSD4 or human aromatase at 100 μ M[1].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.6663 mL	8.3313 mL	16.6625 mL
5 mM	0.3333 mL	1.6663 mL	3.3325 mL
10 mM	0.1666 mL	0.8331 mL	1.6663 mL
50 mM	0.0333 mL	0.1666 mL	0.3333 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

Tang LM, et al. Carbon Chain Length Determines Inhibitory Potency of Perfluoroalkyl Sulfonic Acids on Human Placental 3 β -Hydroxysteroid Dehydrogenase 1: Screening, Structure-Activity Relationship, and In Silico Analysis. *Biomed Environ Sci.* 2023 Nov 20;36(11):1015-1027.

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Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481