

Piflufolastat

Chemical Properties

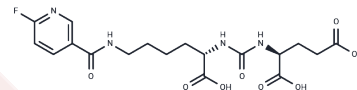
CAS No. : 1423758-00-2

Formula: C₁₈H₂₃FN₄O₈

Molecular Weight: 442.4

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	Piflufolastat (DCFPYL) is a PET imaging agent for prostate cancer PSMA. It is a fluorinated prostate-specific membrane antigen (PSMA) preparation. Piflufolastat can be used to prepare piflufolastat F 18 (DCFPyL F-18).
Targets(IC50)	Epigenetic Reader Domain,PSMA

Solubility Information

Solubility	DMSO: 25 mg/mL (56.51 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	2.2604 mL	11.302 mL	22.604 mL
5 mM	0.4521 mL	2.2604 mL	4.5208 mL
10 mM	0.226 mL	1.1302 mL	2.2604 mL
50 mM	0.0452 mL	0.226 mL	0.4521 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

Keam SJ. Piflufolastat F 18: Diagnostic First Approval. *Mol Diagn Ther.* 2021;25(5):647-656.

Arafa AT, Jain A, Skrobaneck P, et al. Impact of piflufolastat F-18 PSMA PET imaging on clinical decision-making in prostate cancer across disease states: A retrospective review. *Prostate.* 2023;83(9):863-870.

Giesel FL, Hadaschik B, Cardinale J, Radtke J, Vinsensia M, Lehnert W, Kesch C, Tolstov Y, Singer S, Grabe N, Duensing S, Schäfer M, Neels OC, Mier W, Haberkorn U, Kopka K, Kratochwil C. F-18 labelled PSMA-1007: biodistribution, radiation dosimetry and histopathological validation of tumor lesions in prostate cancer patients. *Eur J Nucl Med Mol Imaging.* 2017 Apr;44(4):678-688. doi: 10.1007/s00259-016-3573-4. Epub 2016 Nov 26. PubMed PMID: 27889802; PubMed Central PMCID: PMC5323462.

Kelly J, Amor-Coarasa A, Nikolopoulou A, Kim D, Williams C Jr, Ponnala S, Babich JW. Synthesis and pre-clinical evaluation of a new class of high-affinity (18)F-labeled PSMA ligands for detection of prostate cancer by PET imaging. *Eur J Nucl Med Mol Imaging.* 2017 Apr;44(4):647-661. doi: 10.1007/s00259-016-3556-5. Epub 2016 Nov 15. PubMed PMID: 27847991; PubMed Central PMCID: PMC5323493.

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