

FD-1080 free acid

Chemical Properties

CAS No. : 1151888-25-3

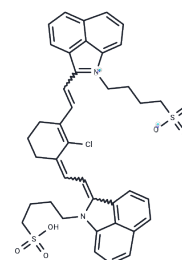
Formula: C₄₀H₃₉ClN₂O₆S₂

Molecular Weight: 743.33

Keep away from direct sunlight

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	FD-1080 free acid, an NIR-II region fluorophore (Ex=1064 nm, Em=1080 nm), facilitates in vivo imaging [1].
Targets(IC50)	Others
In vitro	FD-1080 exhibits enhanced photostability when subjected to sustained laser exposure. Its quantum yield is initially 0.31%, but this increases to 5.94% upon forming complexes with fetal bovine serum (FBS), thereby creating FD-1080-FBS complexes [1].
In vivo	FD-1080 excitation at 1064 nm in the NIR-II range exhibited enhanced tissue penetration and improved imaging resolution over the 650-980 nm NIR spectrum. This capability facilitated deep-tissue, high-resolution in vivo imaging of the vasculature in the left hindlimb, abdomen, and brain, effectively penetrating intact skin, tissue, and bone. Additionally, FD-1080 enabled the quantification of respiratory rates by dynamically imaging the craniocaudal motion of the liver in both awake and anesthetized mice [1].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.3453 mL	6.7265 mL	13.453 mL
5 mM	0.2691 mL	1.3453 mL	2.6906 mL
10 mM	0.1345 mL	0.6726 mL	1.3453 mL
50 mM	0.0269 mL	0.1345 mL	0.2691 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.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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