Lumiprobe Corporation
115 Airport Dr Suite 160
Westminster, Maryland 21157
USA
Phone: +1 888 973 6353
Fax: +1 888 973 6354
Email: order@lumiprobe.com

BDP® FL C12

http://www.lumiprobe.com/p/bdp-fl-c12

BDP® FL C12 is a green fluorescent analog of lauric acid designed for studying lipid metabolism in living cells. The spectral properties ($\lambda_{Ex}/\lambda_{Em}$ ≈ 503/512 nm) are compatible with standard FITC/GFP filter sets. Unlike many other fluorophores (e.g., pyrene, DPH, or NBD), BDP® FL C12 remains fluorescent in both aqueous and lipid environments.

Following uptake by cells, BDP® FL C12 is metabolized similarly to natural long-chain fatty acids and becomes incorporated into multiple lipid classes, including triglycerides, phospholipids, and cholesteryl esters. This enables monitoring of fatty acid uptake, lipid droplet and peroxisome formation, lipid trafficking, and metabolic remodeling across a wide range of cell types without use of radioactive tracers[1,2,3].

[1] PLOS ONE. 2016, 11, 4, e0153522; [2] Nat. Commun. 2024, 15, 1, 4314; [3] Curr. Protoc. 2022, 2, 12, e626.

General properties

Appearance:	orange powder
Molecular weight:	418.34
CAS number:	158757-79-0
Molecular formula:	$C_{23}H_{33}BF_2N_2O_2$
IUPAC name:	12-(2,2-difluoro-10,12-dimethyl-1-aza-3-azonia-2-boranuidatricyclo[7.3.0.03,7]dodeca-3,5,7,9,11-pentaen-4-yl)dodecanoic acid
Solubility:	DMSO, DMF, DCM, acetonitrile
Quality control:	NMR ^{1}H and HPLC-MS (95+%)
Storage conditions:	24 months after receival at -20°C in the dark. Transportation: at room temperature for up to 3 weeks. Desiccate.
Legal statement:	This Product is offered and sold for research purposes only. It has not been tested for safety and efficacy in food, drug, medical device, cosmetic, commercial or any other use. Supply does not express or imply authorization to use for any other purpose, including, without limitation, in vitro diagnostic purposes, in the manufacture of food or pharmaceutical products, in medical devices or in cosmetic products.