Overview

Product name  MitoPerOx
Description  Ratiometric, fluorescent, mitochondria-targeted lipid peroxidation probe
Biological description  Ratiometric, fluorescent, mitochondria-targeted lipid peroxidation probe. Derived from the C11-BODIPY(581/591) probe, which contains a boron dipyromethene difluoride (BODIPY) fluorophore conjugated via a dienyl link to a phenyl group. An attached triphenylphosphonium lipophilic cation leads to selective uptake into mitochondria in living cells, driven by the mitochondrial membrane potential. In response to lipid peroxidation the fluorescence emission maximum shifts from 590 to 520 nm.
Purity  > 95%

Properties

Emission  590nm
Chemical name  4,4-Difluoro-5-(4-phenyl-1,3-butadienyl)-4-bora-3a,4a-diaza-s-indacene-3-(propionylaminoethylenetriphenylphosphonium) bromide
Molecular weight  760.46
Chemical structure

Molecular formula  C_{42}H_{38}BF_{2}N_{3}OP.Br
Storage instructions  Store at -20°C long term. Store In the Dark.
Solubility overview  Soluble in DMSO to 25 mM
Handling  Wherever possible, you should prepare and use solutions on the same day. However, if you need to make up stock solutions in advance, we recommend that you store the solution as aliquots in tightly sealed vials at -20°C. Generally, these will be useable for up to one month. Before use, and prior to opening the vial we recommend that you allow your product to equilibrate to room temperature for at least 1 hour.

Need more advice on solubility, usage and handling? Please visit our frequently asked questions (FAQ) page for more details.
SMILES

\[ \text{[Br-]} \cdot \text{F[B-]} \cdot \text{7(F)} \cdot \text{[N+]}} = \text{2(C=C=2)} \cdot \text{Cl=C=C=C=C1ccc1)} = \text{C6ccc(CCC(=O)NCC[P+]c3ccccc3)(c4ccccc4)c5ccccc5)n67} \]

Source

Synthetic

Please note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE, NOT FOR USE IN HUMANS"

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