

Mito-Photo-DNP, Mitochondria specific, photo-activated protonophore

Catalog	Unit
TBI1580-1MG	1 mg
TBI1580-5MG	5 mg

Product Details

Formal Name: (4-(3-((2,4-Dinitrophenoxy)methyl)-4-nitrophenoxy)butyl)triphenylphosphonium bromide

Molecular Formula: C₃₅H₃₁BrN₃O₈P

Formula Weight: 732.51

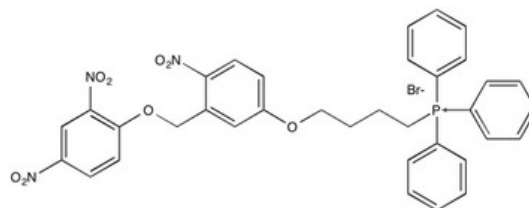
Purity: 98%

Formulation: Powder

Solubility: Soluble in DMSO (60 mg/ml) or in Ethanol (30 mg/ml).

Storage: -20°C

Stability: ≥ 2 years.



Applications

Mitochondria specific, photo-activated protonophore

Functions

Mito-Photo-DNP is a mitochondria-targeted, photo-activated protonophore. This novel tool consists of three structural units, a caged protonophore, a photocleavable linker coupled to a triphenylphosphonium moiety which confers selective uptake by the mitochondria. Cells are treated with Mito-Photo-DNP at 200 nM and irradiated with UV light at 355 nm. Mito-Photo-DNP can be employed for selective uncoupling of either individual or a small number of mitochondria within a cell when used with fluorescence imaging.

Application Procedures

First dissolved in DMSO (60 mg/ml) or in Ethanol (30 mg/ml), then diluted to aqueous buffer. Solutions in DMSO or ethanol may be stored at -20°C for up to 3 months.

For research use only.