

OptoBI-1

Chemical Properties

CAS No. :	2415272-11-4
Formula:	C32H37N5O2
Molecular Weight:	523.67
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	OptoBI-1 is a photochromic, TRPC3/6/7-selective agonist based on a benzimidazole structure, with an EC ₅₀ of approximately 0.1 μM for TRPC3 in its active cis conformation. OptoBI-1 can precisely regulate neuronal firing and calcium signaling in endothelial cells, and can be used to study TRPC6-dependent NFAT signaling pathways in mast cells.
Targets(IC50)	Others,TRP/TRPV Channel
In vitro	OptoBI-1 allows precise temporal control of TRPC3-linked cellular functions, including neuronal firing and endothelial Ca ²⁺ transients [1].

Solubility Information

Solubility	DMSO: 3.34 mg/mL (6.38 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	1.9096 mL	9.548 mL	19.096 mL
5 mM	0.3819 mL	1.9096 mL	3.8192 mL
10 mM	0.191 mL	0.9548 mL	1.9096 mL
50 mM	0.0382 mL	0.191 mL	0.3819 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

Tiapko O, et al. Lipid-independent control of endothelial and neuronal TRPC3 channels by light. Chem Sci. 2019;10 (9):2837-2842. Published 2019 Jan 15.

Curcic et al (2019) Photopharmacology and opto-chemogenetics of TRPC channels-some therapeutic visions. Pharmacol.Ther. 200 13 PMID:30974125

Curcic et al (2019) TRPC-mediated Ca²⁺ signaling and control of cellular functions. Semin.Cell Dev.Biol. 94 28 PMID:30738858

Lichtenegger et al (2018) An optically controlled probe identifies lipid-gating fenestrations within the TRPC3 channel. Nat.Chem.Biol. 14 396 PMID:29556099

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