
Product Data Sheet

Product Name: OptoBI-1
Cat. No.: GC50640

Chemical Properties

Cas. No. 2415272-11-4

SMILES CCCCC1=CC=C(/N=N/C2=CC=C(C=C2)CCCC(N3CCC(N4C(NC5=CC=CC=C45)=O)CC3)=O)C=C1

Formula $C_{32}H_{37}N_5O_2$ M.Wt 523.67

Solubility Soluble in DMSO Storage Store at -20°C

General For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Evaluation sample solution: ship with blue ice All other available size: ship with RT, or blue ice Condition upon request.

Structure

Background

Photoswitchable TRPC3/6/7 agonist (EC50 for active cis-form ~0.1 μM at TRPC3). Switches conformation from trans to cis at 365 nm and cis to trans at 430 nm. Returns to trans conformation in the dark after ~ 50 minutes. No effect observed on TRPC4 or 5. Rapidly changes TRPC3 conductance and inhibits neuronal firing in cis-state.

Tiapko et al (2019) Lipid-independent control of endothelial and neuronal TRPC3 channels by light. Chem.Sci. 10 2837 |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

Caution: Product has not been fully validated for medical applications. For research use only.

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