Print Date: Nov 8th 2019

Certificate of Analysis

www.tocris.com

Product Name: OptoBI-1 **Catalog No.:** 7013 **Batch No.:** 1

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{32}H_{37}N_5O_2.¼H_2O$

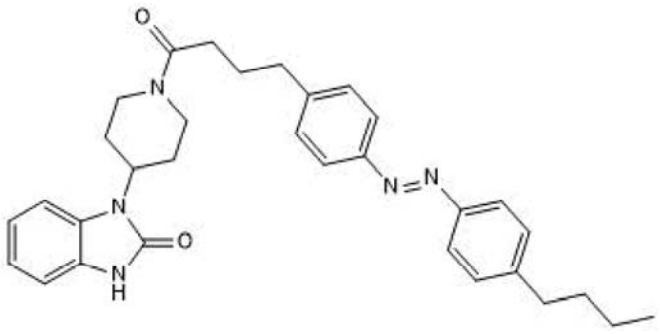
Batch Molecular Weight: 528.17

Physical Appearance: Orange solid

Solubility: DMSO to 10 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.0% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	72.77	7.16	13.26
Found	72.89	7.13	13.43

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Product Name: OptoBI-1 **Catalog No.: 7013** **Batch No.: 1**

Description:

Photoswitchable TRPC3/6/7 agonist (EC_{50} 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.

Physical and Chemical Properties:

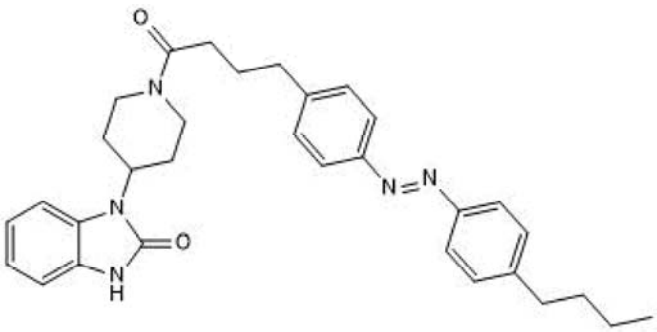
Batch Molecular Formula: $C_{32}H_{37}N_5O_2.¼H_2O$

Batch Molecular Weight: 528.17

Physical Appearance: Orange solid

Minimum Purity: >98%

Batch Molecular Structure:



Storage: Store at -20°C

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

Solubility & Usage Info:

DMSO to 10 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

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 Ca^{2+} signaling and control of cellular functions. Semin.Cell Dev.Biol. ***94*** 28. PMID: 30738858.

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

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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