

**Product Name:** OB-1

**Catalog No.:** 6545

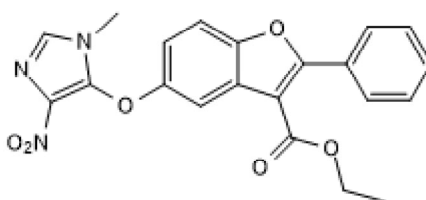
**Batch No.:** 1

CAS Number: 300803-69-4

IUPAC Name: Ethyl 5-(1-methyl-4-nitro-1*H*-imidazol-5-yloxy)-2-phenylbenzofuran-3-carboxylate

**1. PHYSICAL AND CHEMICAL PROPERTIES**

**Batch Molecular Formula:** C<sub>21</sub>H<sub>17</sub>N<sub>3</sub>O<sub>6</sub>  
**Batch Molecular Weight:** 407.38  
**Physical Appearance:** Beige solid  
**Solubility:** DMSO to 50 mM  
**Storage:** Store at RT  
**Batch Molecular Structure:**



**2. ANALYTICAL DATA**

**TLC:** R<sub>f</sub> = 0.5 (Dichloromethane:Methanol [95:5])  
**HPLC:** Shows 99.2% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure  
**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	61.92	4.21	10.31
Found	61.95	4.13	10.22

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

**Product Name:** OB-1

**Catalog No.:** 6545

**1**

CAS Number: 300803-69-4

IUPAC Name: Ethyl 5-(1-methyl-4-nitro-1*H*-imidazol-5-yloxy)-2-phenylbenzofuran-3-carboxylate

**Description:**

OB-1 is a stomatin-like protein-3 (STOML3) oligomerization inhibitor. Reduces STOML3 cluster size in the plasma membrane. Decreases mechanically-induced Piezo1 but not ASIC3 current amplitudes in N2a cells and cultured mouse sensory neurons in vitro. Subcutaneous administration in mice reversibly silences touch receptor activity and inhibits paw withdrawal reflex in a mouse neuropathic pain model.

**Physical and Chemical Properties:**

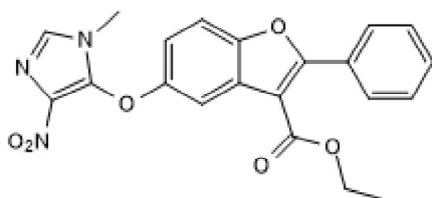
Batch Molecular Formula: C<sub>21</sub>H<sub>17</sub>N<sub>3</sub>O<sub>6</sub>

Batch Molecular Weight: 407.38

Physical Appearance: Beige solid

**Minimum Purity:** ≥98%

**Batch Molecular Structure:**



**Storage:** Store at RT

**Solubility & Usage Info:**

DMSO to 50 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. \*Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

**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:**

**Wetzel et al** (2017) Small-molecule inhibition of STOML3 oligomerization reverses pathological mechanical hypersensitivity. *Nat.Neurosci.* **20** 209. PMID: 27941788.

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

**bio-techne.com**

info@bio-techne.com

techsupport@bio-techne.com

**North America**

Tel: (800) 343 7475

**China**

info.cn@bio-techne.com

Tel: +86 (21) 52380373

**Europe Middle East Africa**

Tel: +44 (0)1235 529449

**Rest of World**

www.tocris.com/distributors

Tel:+1 612 379 2956