

**Product Name:** DCEBIO

**Catalog No.:** 1422

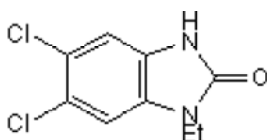
**Batch No.:** 3

CAS Number: 60563-36-2

IUPAC Name: 5,6-Dichloro-1-ethyl-1,3-dihydro-2H-benzimidazol-2-one

**1. PHYSICAL AND CHEMICAL PROPERTIES**

**Batch Molecular Formula:** C<sub>9</sub>H<sub>8</sub>Cl<sub>2</sub>N<sub>2</sub>O  
**Batch Molecular Weight:** 231.08  
**Physical Appearance:** Off-white solid  
**Solubility:** DMSO to 100 mM  
 ethanol to 100 mM  
**Storage:** Store at RT  
**Batch Molecular Structure:**



**2. ANALYTICAL DATA**

**HPLC:** Shows 99.9% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	46.77	3.49	12.12
Found	46.77	3.44	12.09

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

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**Description:**

Stimulates Cl<sup>-</sup> secretion via the activation of hK<sub>Ca</sub>3.1 (IK1) potassium channels and an apical Cl<sup>-</sup> conductance carried by the CFTR channel. More potent than its analog 1-EBIO (Cat. No. 1041).

**Physical and Chemical Properties:**

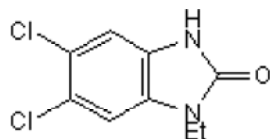
Batch Molecular Formula: C<sub>9</sub>H<sub>8</sub>Cl<sub>2</sub>N<sub>2</sub>O

Batch Molecular Weight: 231.08

Physical Appearance: Off-white solid

**Minimum Purity:** ≥99%

**Batch Molecular Structure:**



**Storage:** Store at RT

**Solubility & Usage Info:**

DMSO to 100 mM  
ethanol to 100 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:**

**Hamilton and Kiessling *et al*** (2006) DCEBIO stimulates Cl<sup>-</sup> secretion in the mouse jejunum. *Am.J.Physiol.Cell Physiol.* **290** 152. PMID: 16135545.

**Singh *et al*** (2001) Benzimidazolone activators of chloride secretion: potential therapeutics for cystic fibrosis and chronic obstructive pulmonary disease. *J.Pharmacol.Exp.Ther.* **296** 600. PMID: 11160649.

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**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