1-EBIO

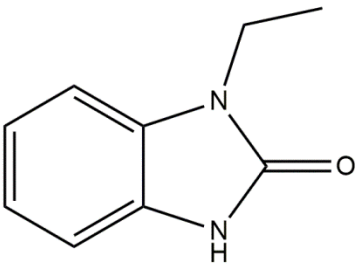
04/21

ALTERNATE NAMES: 1-Ethyl-2-benzimidazolinone; 3-ethyl-1H-benzimidazol-2-one; 1-ethyl-1,3-dihydro-2h-benzimidazol-2-one

CATALOG #:

B3127-10	10 mg
B3127-50	50 mg

STRUCTURE:



MOLECULAR FORMULA: $C_9H_{10}N_2O$

MOLECULAR WEIGHT: 162.19

CAS NUMBER: 10045-45-1

APPEARANCE: White solid

PURITY: ≥ 95%

SOLUBILITY: ~16 mg/ml in DMSO or Ethanol

DESCRIPTION: 1-EBIO is an activator of Ca^{2+}- and cAMP-sensitive K^+ channels. It stimulates a sustained Cl- secretory response with an EC_{50} of 490 µM. It induces cardiogenesis of pluripotent stem cells.

STORAGE TEMPERATURE: -20 ºC

HANDLING: Do not take internally. Wear gloves and mask when handling the product! Avoid contact by all modes of exposure.

REFERENCES:

1. Devor, D.C., Singh, A.K., Frizzell, R.A., et al. Modulation of Cl- secretion by benzimidazolones. I. Direct activation of a Ca(2+)-dependent K+ channel. American Journal of Physiology 271, L775-L784 (1996)
2. Cuthbert, A.W., Hickman, M.E., Thorn, P., et al. Activation of Ca2+- and cAMP-sensitive K+ channels in murine colonic epithelia by 1-ethyl-2-benzimidazolone. American Journal of Physiology.Endocrinology and Metabolism 277(1), C111-C120 (1999).
3. Kleger, A., Seufferlein, T., Malan, D., et al. Modulation of calcium-activated potassium channels induces cardiogenesis of pluripotent stem cells and enrichment of pacemaker-like cells. Circulation 122(18):1823-36 (2010).

RELATED PRODUCTS:

Astemizole (Cat. No. B3050)
Pinacidil monohydrate (Cat. No. B1904)
Zonisamide (Cat. No. B3279)
Bepridil hydrochloride (Cat. No. B3295)
Glibenclamide (Cat. No. 1878)

DISCLAIMER: ***FOR RESEARCH USE ONLY! Not to be used on humans.***