

Hello Bio, Inc.
304 Wall St., Princeton, NJ 08540 USA

T. 609-683-7500
F. 609-228-4994

customercare-usa@m2stage.hellobio.com



DATASHEET

1-EBIO

Product overview

Name	1-EBIO
Cat No	HB1045
Biological action	Activator
Purity	>98%
Description	Epithelial K _{Ca} channel activator. Promotes ESC differentiation into cardiomyocytes.

Images



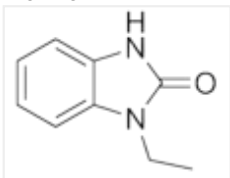
Biological Data

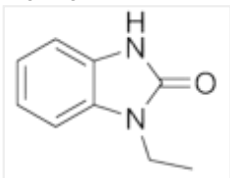
Biological description	Epithelial K _{Ca} channel activator ($K_{0.5} = 84 \mu\text{M}$ for K _{Ca} 3.1 channels). Hyperpolarises aortic valve endothelial cells to the same extent as acetylcholine. Also promotes embryonic stem cell (ESC) differentiation into cardiomyocytes. Displays vasodilation and anticonvulsant properties.
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Solubility & Handling

Storage instructions	Room temperature
Solubility overview	Soluble in DMSO (100mM) and in ethanol (100mM)
Important	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use.

Chemical Data

Chemical name	1-Ethyl-2-benzimidazolinone
Molecular Weight	162.19
Chemical structure	



Molecular Formula	C ₉ H ₁₀ N ₂ O
CAS Number	10045-45-1

Chemical name	1-Ethyl-2-benzimidazolinone
PubChem identifier	82320
SMILES	<chem>CCN1C2=CC=CC=C2NC1=O</chem>
InChi	InChI=1S/C9H10N2O/c1-2-11-8-6-4-3-5-7(8)10-9(11)12/h3-6H,2H2,1H3,(H,10,12)
InChiKey	CXUCKELNYMZTRT-UHFFFAOYSA-N
MDL number	MFCD00005715

References

1-Ethyl-2-benzimidazolinone stimulates endothelial K(Ca) channels and nitric oxide formation in rat mesenteric vessels.

Adeagbo AS (1999) Eur J Pharmacol 379(2-3)

PubMedID [10497901](#)

Pharmacological activation of cloned intermediate- and small-conductance Ca(2+)-activated K(+) channels.

Syme CA *et al* (2000) Am J Physiol Cell Physiol 278(3)

PubMedID [10712246](#)

In vivo characterisation of the small-conductance KCa (SK) channel activator 1-ethyl-2-benzimidazolinone (1-EBIO) as a potential anticonvulsant.

Anderson NJ *et al* (2006) Eur J Pharmacol 546(1-3)

PubMedID [16925994](#)

Reduced hyperpolarization in endothelial cells of rabbit aortic valve following chronic nitroglycerine administration.

Kusama N *et al* (2005) Br J Pharmacol 146(4)

PubMedID [16056232](#)
