

1-EBIO

Catalog Number :1004515

RUO: For Research Use Only. Not for use in diagnostic procedures.

Product Information

Synonyms: 1-ethyl-2-benzimidazolinone, 1-Ethylbenzimidazolinone, 1-EB10

Chemical Name: 3-ethyl-1H-benzimidazol-2-one

Molecular Formula: C₉H₁₀N₂O

Molecular Weight: 162.2

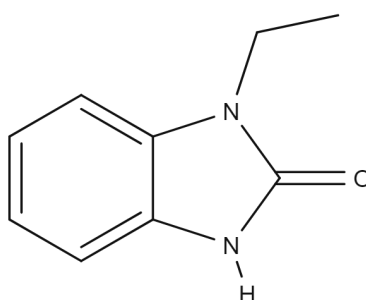
CAS Number: 10045-45-1

Purity: ≥98%

Applications: FA

Formulation: Crystalline solid

Storage: Product should be kept at -20°C.



Description

1-EBIO is an epithelial Ca²⁺-activated K⁺ and CFTR channel activator. It is reported to enhance the differentiation of embryonic stem cells into cardiomyocytes.

Preparation & Storage

Soluble in organic solvents such as DMF and DMSO. DMSO up to 100mg/ml.

References

1. Anderson, N. J., Slough, S., & Watson, W. P. (2006). In vivo characterisation of the small-conductance K_{Ca} (SK) channel activator 1-ethyl-2-benzimidazolinone (1-EBIO) as a potential anticonvulsant. *European journal of pharmacology*, 546(1-3), 48-53. 2. Walker, S. D., Doras, K. A., Ings, N. T., Crane, G. J., & Garland, C. J. (2001). Activation of endothelial cell IK_{Ca} with 1-ethyl-2-benzimidazolinone evokes smooth muscle hyperpolarization in rat isolated mesenteric artery. *British journal of pharmacology*, 134(7), 1548-1554. 3. Müller, M., Stockmann, M., Malan, D., Wolheim, A., Tischendorf, M., Linta, L., ... & Wobus, A. M. (2012). Ca²⁺ activated K channels-new tools to induce cardiac commitment from pluripotent stem cells in mice and men. *Stem Cell Reviews and Reports*, 8(3), 720-740.