
Product Data Sheet

Product Name: Asterric Acid

Cat. No.: GC16216

Chemical Properties

Cas. No. 577-64-0

Chemical Name 2-(2-carboxy-3-hydroxy-5-methylphenoxy)-5-hydroxy-3-methoxy-benzoic acid, 1-methyl ester

SMILES CC1=CC(O)=C(C(O)=O)C(OC2=C(OC)C=C(O)C=C2C(OC)=O)=C1

Formula $C_{17}H_{16}O_8$

M.Wt 348.3

Solubility Soluble in ethanol; Soluble in DMSO; Soluble in dimethyl formamide

Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT, or blue ice upon request.

Structure

Background

IC50: 10 μM for ET-1 binding to the ETA receptor of A10 cells

Asterric Acid is an ETA receptor inhibitor.

Endothelin (ET), a potent vasoconstrictor/pressor peptide consisting of 21 amino acid residues, was first isolated from the cultures of porcine aortic endothelial cells. Analyses of a human genomic library reveals three forms of ET (ET-1, ET-2 and ET-3) with more than 70% homology with one another. In various organs, high affinity and specific receptors for ET have been found, which have been classified as receptors ETA and ETB. ET-1 has potent and long-lasting vasoconstrictive activity, as a result of binding to the ETA receptor.

In vitro: Previous study asterric acid isolated as an active substance from the culture filtrate of a fungus, *Aspergillus* sp. Asterric acid had also been reported as a metabolite

Caution: Product has not been fully validated for medical applications. For research use only.

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of a fungus. It was found that asterric acid had the property of inhibiting ET-1 binding to the ETA receptor of A10 cells, but it showed no inhibitory activity against ANP and A II binding at 10 mM, which indicated that asterric acid displayed as a specific inhibitor of ET-1 binding [1].

In vivo: Up to now, there is no animal in vivo data reported.

Clinical trial: So far, no clinical study has been conducted.

Reference:

[1] Ohashi, H. ,Akiyama, H.,Nishikori, K., et al. Asterric acid, a new endothelin binding inhibitor. Journal of Antibiotics 45, 1684-1685 (1992).

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