

Product Data Sheet

Product Name: EB1
Cat. No.: GC73118

Chemical Properties

Cas. No. 42951-68-8

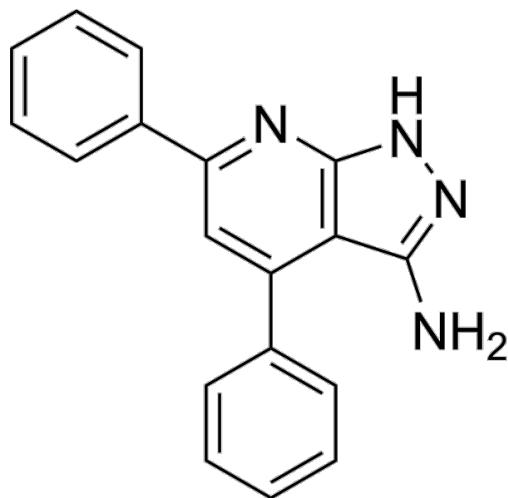
Formula $C_{18}H_{14}N_4$ M.Wt 286.33

Solubility DMSO : 8.33 mg/mL (29.09 mM);
ultrasonic and warming and heat to 60°C) Storage -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

EB1 is the inhibitor of kinases MNK with IC₅₀s of 0.69 μM (MNK1) and 9.4 μM (MNK2). EB1 selectively inhibits the growth of cancer cells, but not normal cells. EB1 also increases cell apoptosis and suppresses eIF4E phosphorylation.

EB1 (1.3-40 μM; 24 hr) inhibits the phosphorylation of eIF4E dose-dependently[1]. EB1 (2.5-40 μM; 72 hr) shows dose-dependent cytotoxicity on tumor cells, and induces apoptosis[1]. EB1 (5 μM, 10

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

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μM, and 20 μM; 24 hr) acts directly on MNK kinases without perturbing activating upstream signaling, such as activation of p38 (p-p38) and phosphorylation of its downstream effector HSP27[1]. EB1 (compound 14) inhibits the growth of HepG2 and MCF-7 cancer cells with IC50s of 0.74 μM and 5.18 μM, respectively[2].

References:

- [1]. Bou-Petit E, et al. Overcoming Paradoxical Kinase Priming by a Novel MNK1 Inhibitor. J Med Chem. 2022 Apr 28;65(8):6070-6087.
- [2]. Aboukhatwa SM, et al. Nicotinonitrile-derived apoptotic inducers: Design, synthesis, X-ray crystal structure and Pim kinase inhibition. Bioorg Chem. 2022 Dec;129:106126.

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