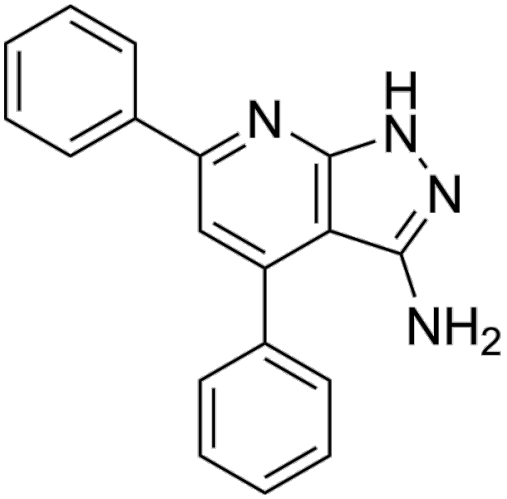
Product Data Sheet

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

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.

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