

Product Data Sheet

Product Name: Pifithrin- β

Cat. No.: GC17262

Chemical Properties

Cas. No. 60477-34-1

Chemical Name 2-(4-methylphenyl)-5,6,7,8-tetrahydroimidazo[2,1-b][1,3]benzothiazole

SMILES CC1=CC=C(C=C1)C2=CN3C4=C(CCCC4)SC3=N2

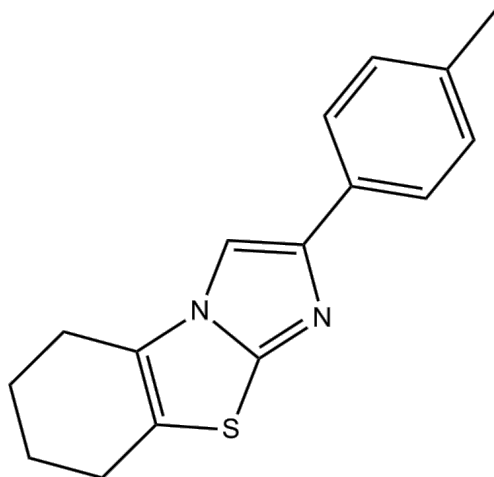
Formula $C_{16}H_{16}N_2S$ M.Wt 268.38

Solubility DMF: 25 mg/ml, DMSO: 14 mg/ml, Ethanol: 30 mg/ml, Ethanol: PBS (pH 7.2) (1:10): 0.1 mg/ml
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

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

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

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Pifithrin- β (PFT β) is a potent p53 inhibitor with an IC₅₀ of 23 μ M.

Pifithrin- α , an inhibitor of the p53 protein, is regarded as a lead compound for cancer and neurodegenerative disease therapy. Pifithrin- α is very unstable in culture medium and rapidly converts to its condensation product pifithrin- β (PFT β), the N-acetyl derivative[2]. After 24 h, the viability assay shows that the pretreatments with 1 and 10 μ M pifithrin- β exerts neuroprotective effects[3].

References:

- [1]. Christodoulou MS, et al. Synthesis and biological evaluation of imidazolo[2,1-b]benzothiazole derivatives, as potential p53 inhibitors. *Bioorg Med Chem*. 2011 Mar 1;19(5):1649-57.
- [2]. Fernández-Cruz ML, et al. Biological and chemical studies on aryl hydrocarbon receptor induction by the p53 inhibitor pifithrin- α and its condensation product pifithrin- β . *Life Sci*. 2011 Apr 25;88(17-18):774-83.
- [3]. Da Pozzo E, et al. p53 functional inhibitors behaving like pifithrin- β counteract the Alzheimer peptide non- β -amyloid component effects in human SH-SY5Y cells. *ACS Chem Neurosci*. 2014 May 21;5(5):390-9.

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