

CGP52411

Chemical Properties

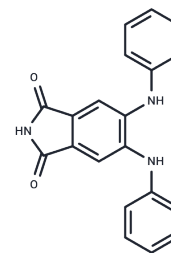
CAS No. : 145915-58-8

Formula: C₂₀H₁₅N₃O₂

Molecular Weight: 329.35

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year



Biological Description

Description	CGP52411 is an orally active, and ATP-competitive inhibitor of EGFR (IC ₅₀ : 0.3 μM). CGP52411 blocks the toxic influx of Ca ²⁺ ions into neuronal cells and dramatically inhibits and reverses the formation of β-amyloid Aβ ₄₂ fibril aggregates. CGP52411 can be used in studies about Alzheimer's diseases.
Targets(IC ₅₀)	EGFR,Beta Amyloid
In vitro	In A431 cells, CGP52411 (0-100 μM) dose-dependently inhibits autophosphorylation and c-src autophosphorylation with IC ₅₀ s of 1 μM and 16 μM, respectively. CGP52411 reduces tyrosine phosphorylation of p185c-erbB2 in a concentration-dependent manner (IC ₅₀ = 10 μM)[1]. CGP52411 inhibits c-src kinase (IC ₅₀ = 16 μM) and PKC isozymes isolated from porcine brain (IC ₅₀ = 80 μM)[1].
In vivo	In female BALB/c nude mice, CGP52411 (6.3 mg/kg-50 mg/kg; orally) shows antitumor efficacy[1].

Solubility Information

Solubility	DMSO: 90 mg/mL (273.3 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.0363 mL	15.1814 mL	30.3628 mL
5 mM	0.6073 mL	3.0363 mL	6.0726 mL
10 mM	0.3036 mL	1.5181 mL	3.0363 mL
50 mM	0.0607 mL	0.3036 mL	0.6073 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Reference

Buchdunger E, et al. 4,5-Dianilinophthalimide: a protein-tyrosine kinase inhibitor with selectivity for the epidermal growth factor receptor signal transduction pathway and potent in vivo antitumor activity. Proc Natl Acad Sci U S A. 1994 Mar 15;91(6):2334-8.

Blanchard BJ, et al. Efficient reversal of Alzheimer's disease fibril formation and elimination of neurotoxicity by a small molecule. Proc Natl Acad Sci U S A. 2004 Oct 5;101(40):14326-32.

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