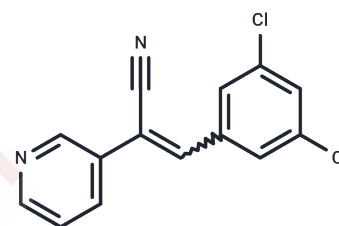


RG14620

Chemical Properties

CAS No. : 136831-49-7
 Formula: C₁₄H₈Cl₂N₂
 Molecular Weight: 275.13
 Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.



Biological Description

Description	RG14620 (Tyrphostin RG14620) is an epidermal growth factor receptor (EGFR) inhibitor.
Targets(IC50)	EGFR,HER
In vitro	RG-14620 inhibits colony formation and DNA synthesis by HER 14 cells, which are stimulated by 50 ng/mL EGF, in a dose-dependent manner. The IC50s for RG-14620 are 3 μM for HER 14 colony formation and 1 pM for HER 14 DNA synthesis[1]. RG-14620 also suppresses colony formation and DNA synthesis by EGF-stimulated MH-85 cells in a dose-dependent manner. The IC50s for RG-14620 on MH-85 cells are 4 μM for colony formation and 1.25 μM for DNA synthesis[1].
In vivo	RG-14620, at a dose of 200 μg/mouse/day inhibits MH-85 tumor growth in nude mice. Mice show less cachexia and hypercalcemia, eat more food, and are more active than untreated MH-85 tumor-bearing animals[1].
Cell Research	RG14620 is dissolved in 100% DMSO and diluted with the culture medium before addition to the cells. MH-85 and HER 14 cells are cultured in the medium in the presence or absence of increasing concentrations of RG-13022 or RG-14620 for 10 days. At the end of culture, the cells are fixed with 4% (v/v) formaldehyde in calcium-magnesium-free phosphate-buffered saline for 15 min at room temperature and stained with hematoxylin. Numbers of colonies including more than 20 cells in each well are counted under the microscope[1].

Solubility Information

Solubility	DMSO: 18.33 mg/mL (66.62 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Corn Oil: 1.5 mg/mL (5.45 mM),Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.6346 mL	18.1732 mL	36.3465 mL
5 mM	0.7269 mL	3.6346 mL	7.2693 mL
10 mM	0.3635 mL	1.8173 mL	3.6346 mL
50 mM	0.0727 mL	0.3635 mL	0.7269 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.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Yoneda T, et al. The antiproliferative effects of tyrosine kinase inhibitors tyrphostins on a human squamous cell carcinoma in vitro and in nude mice. *Cancer Res.* 1991 Aug 15;51(16):4430-5.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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