

PD184161

Chemical Properties

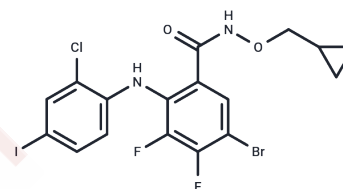
CAS No. : 212631-67-9

Formula: C₁₇H₁₃BrClF₂IN₂O₂

Molecular Weight: 557.56

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	PD184161 is a novel, orally-active MEK inhibitor. PD184161 inhibited MEK activity (IC ₅₀ = 10-100 nM) in a time- and concentration-dependent manner[1].
Targets(IC ₅₀)	Apoptosis,MEK
In vitro	PD184161 inhibited MEK activity (IC ₅₀ = 10-100 nM) in a time- and concentration-dependent manner more effectively than PD098059 or U0126. PD184161 inhibited cell proliferation and induced apoptosis at concentrations of > or = 1.0 microM in a time- and concentration-dependent manner[1].
In vivo	In vivo, tumor xenograft P-ERK levels were significantly reduced 3 to 12 hours after an oral dose of PD184161 (P < .05). Contrarily, tumor xenograft P-ERK levels following long-term (24 days) daily dosing of PD184161 were refractory to this signaling effect. PD184161 significantly suppressed tumor engraftment and initial growth (P < .0001); however, established tumors were not significantly affected. In conclusion, PD184161 has antitumor effects in HCC in vivo that appear to correlate with suppression of MEK activity [1].

Solubility Information

Solubility	DMSO: 55 mg/mL (98.64 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Corn Oil: 2.5 mg/mL (4.48 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	1.7935 mL	8.9676 mL	17.9353 mL
5 mM	0.3587 mL	1.7935 mL	3.5871 mL
10 mM	0.1794 mL	0.8968 mL	1.7935 mL
50 mM	0.0359 mL	0.1794 mL	0.3587 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

Klein, P. J., Schmidt, C.M., Wiesenauer, C.A., et al. The effects of a novel MEK inhibitor PD184161 on MEK-ERK signaling and growth in human liver cancer. *Neoplasia* 8(1), 1-8 (2006).

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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