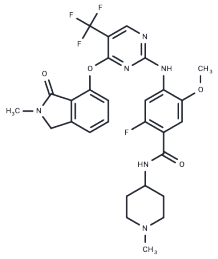
Data Sheet (Cat.No.T64167)

TargetMol

Ifebemtinib

Chemical Properties



CAS No. : 1227948-82-4

Formula: C28H28F4N6O4

Molecular Weight: 588.55

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	Ifebemtinib (BI-853520) is an orally active and potent inhibitor of adhesion plaque kinase (FAK) (IC50=1 nM) with anti-tumour activity that inhibits globule formation and in situ tumour growth in malignant pleural mesotheliomas, and may be useful for the study of breast and ovarian cancer.
Targets(IC50)	FAK
In vitro	4T1, Py2T, and Py2T-LT cells were exposed to increasing concentrations of BI-853520 (0, 0.1, 0.5, 1, 5, and 10 μM for 4T1 cells; 1, 3, and 10 μM for Py2T and Py2T-LT cells) for 24 hours. The results demonstrate that BI-853520 reduces Y397-FAK phosphorylation in a dose-dependent and time-dependent manner[2].
In vivo	In PC-3 cells, BI-853520 (Ifebemtinib; 0-3 μM; 2 h) resulted in a concentration-dependent reduction of the signal, with a median EC50 value of 1nM[2].

Solubility Information

Solubility	DMSO: 71.4 mg/mL (121.32 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween-80+45% Saline: 3.3 mg/mL (5.61 mM),Sonication is recommended. *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.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.6991 mL	8.4955 mL	16.9909 mL
5 mM	0.3398 mL	1.6991 mL	3.3982 mL
10 mM	0.1699 mL	0.8495 mL	1.6991 mL
50 mM	0.034 mL	0.1699 mL	0.3398 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

Hirt UA, et al. Efficacy of the highly selective focal adhesion kinase inhibitor BI 853520 in adenocarcinoma xenograft models is linked to a mesenchymal tumor phenotype. Oncogenesis. 2018 Feb 23;7(2):21.
Stefanie Tiede, et al. The FAK inhibitor BI 853520 exerts anti-tumor effects in breast cancer. Oncogenesis. 2018 Sep 20;7(9):73.
Ulrich A Hirt, et al. Efficacy of the highly selective focal adhesion kinase inhibitor BI 853520 in adenocarcinoma xenograft models is linked to a mesenchymal tumor phenotype. Oncogenesis. 2018 Feb 23;7(2):21.