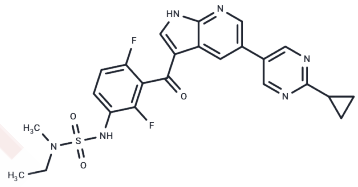
Data Sheet (Cat.No.T6949)

PLX7904

Chemical Properties



CAS No. :	1393465-84-3
Formula:	C24H22F2N6O3S
Molecular Weight:	512.53
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	PLX7904 (PB04), also known as PB04, is a potent and selective paradox-breaker RAF inhibitor. It is able to efficiently inhibit activation of ERK1/2 in mutant BRAF melanoma cells but does not hyperactivate ERK1/2 in mutant RAS-expressing cells.
Targets(IC50)	Raf
In vitro	PLX7940 is able to efficiently inhibit activation of ERK1/2 in mutant BRAF melanoma cells but does not hyperactivate ERK1/2 in mutant RAS-expressing cells. Consistent with ERK1/2 re-activation driving the re-acquisition of malignant properties, PLX7904 promotes apoptosis and inhibits entry into S phase and anchorage-independent growth in mutant N-RAS mediated vemurafenib-resistant cells. PLX7904 is also evaluated in the human SCC cell line A431 and the human breast adenocarcinoma cell line SKBR3 as these cells achieve MAPK pathway activation by upstream signals feeding into RAS (through overexpression of epidermal growth factor receptor (EGFR) and human epidermal growth factor receptor 2 (HER2), respectively)[1][2].
In vivo	PLX7904 inhibits the COLO205 xenograft growth in eight mice per group[1].
Cell Research	Cells are treated with PB04(PLX7904) at different concentrations (0, 0.05, 0.1, 1, 5 μM) for 24 h. Cells are lysed and analyzed by Western blotting with phospho-MEK1/2, total MEK1/2, phospho-ERK1/2 and total ERK1/2 antibodies. (Only for Reference)

Solubility Information

Solubility	Ethanol: < 1 mg/mL (insoluble or slightly soluble), H2O: < 1 mg/mL (insoluble or slightly soluble), DMSO: 100 mg/mL (195.11 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: 4 mg/mL (7.8 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	1.9511 mL	9.7555 mL	19.5111 mL
5 mM	0.3902 mL	1.9511 mL	3.9022 mL
10 mM	0.1951 mL	0.9756 mL	1.9511 mL
50 mM	0.039 mL	0.1951 mL	0.3902 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

Zhang C, et al. Nature. 2015, 526(7574):583-586.
Le K, et al. Pigment Cell Melanoma Res. 2013, 26(4):509-517.