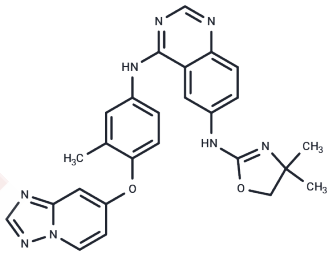
Data Sheet (Cat.No.T2364)

TargetMol

Tucatinib

Chemical Properties



CAS No. : 937263-43-9

Formula: C26H24N8O2

Molecular Weight: 480.52

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	Tucatinib (ONT-380) is a potent and selective HER2 inhibitor (IC50: 8 nM).
Targets(IC50)	EGFR,HER
In vitro	Irbinitinib selectively binds to and inhibits the phosphorylation of ErbB-2, which may prevent the activation of ErbB-2 signal transduction pathways, resulting in growth inhibition and death of ErbB-2-expressing tumor cells.
In vivo	In vivo,Tucatinib significantly inhibits tumor growth in multiple HER2-dependent tumor xenograft models[2]. It shows excellent activity in numerous mouse tumor models including breast (BT-474, MDA-MB-453), ovarian (SKOV-3) and gastric (N87) carcinoma models. In the BT-474 model,Tucatinib demonstrated significant dose-related tumor growth inhibition (TGI; 50% at 50 mg/kg/d and 96% at 100 mg/kg/d) with numerous partial regressions (>50% reduction from baseline size)[1].

Solubility Information

Solubility	DMSO: 45 mg/mL (93.65 mM),Sonication is recommended. Ethanol: 15 mg/mL (31.22 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.0811 mL	10.4054 mL	20.8108 mL
5 mM	0.4162 mL	2.0811 mL	4.1622 mL
10 mM	0.2081 mL	1.0405 mL	2.0811 mL
50 mM	0.0416 mL	0.2081 mL	0.4162 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

P Lee, et al. Cancer Research(Poster Session Abstracts). 2009, 69(24 Suppl):Abstract nr 5104.
Zou Y, Zheng S, Xie X, et al. N6-methyladenosine regulated FGFR4 attenuates ferroptotic cell death in recalcitrant HER2-positive breast cancer. Nature Communications. 2022, 13(1): 1-18
SL Moulder, et al. AACR-NCI-EORTC. Nov 12-16, 2011, Abstract#A143.