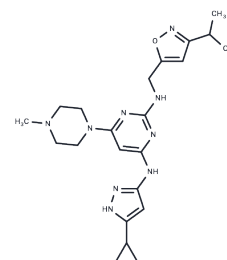


XL228

Chemical Properties

CAS No. : 898280-07-4
 Formula: C₂₂H₃₁N₉O
 Molecular Weight: 437.54
 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	XL228 is an inhibitor of multi-targeted tyrosine kinase (IC ₅₀ s: 5, 3.1, 1.6, 6.1, 2 nM for Bcr-Abl, Aurora A, IGF-1R, Src, and Lyn, respectively).
Targets(IC ₅₀)	Bcr-Abl,Aurora Kinase,IGF-1R,Src
In vitro	XL228 inhibits phosphorylation of BCR-ABL and its substrate STAT5 in K562 cells in vitro (IC ₅₀ s: 33 and 43 nM, respectively). XL228 eliminates the phosphorylation of Aurora A and B at concentrations above 10 nM. XL228 displays a broad pattern of protein kinase inhibition, including the tyrosine kinases IGF1R, SRC, ABL, FGFR1-3, and ALK and the serine/threonine kinases Aurora A and Aurora B. Approximately 30% of the lines demonstrate XL228 IC ₅₀ values of <100nM in viability assays, including many lines with characterized ALK or FGFR mutations or amplifications [2][3].
In vivo	Single-dose pharmacodynamics studies demonstrate that XL228 on BCR-ABL signaling in K562 xenograft tumors has a potent effect. At XL228 plasma concentrations of 3.5 μM, phosphorylation of BCR-ABL is decreased by 50%; a similar decrease in phospho-STAT5 occurred at 0.8 μM plasma concentration [3].

Solubility Information

Solubility	DMSO: 83.33 mg/mL (190.45 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 (7.54 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	2.2855 mL	11.4275 mL	22.8551 mL
5 mM	0.4571 mL	2.2855 mL	4.571 mL
10 mM	0.2286 mL	1.1428 mL	2.2855 mL
50 mM	0.0457 mL	0.2286 mL	0.4571 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

Cortes J, et al. Preliminary Clinical Activity in a Phase I Trial of the BCR-ABL/IGF-1R/Aurora Kinase Inhibitor XL228 in Patients with Ph⁺⁺ Leukemias with Either Failure to Multiple TKI Therapies or with T315I Mutation. Blood 2008 112: 3232

Douglas O, et al. Abstract C192: Characterization of the target profile of XL228, a multi-targeted protein kinase inhibitor in phase 1 clinical development. Mol Cancer Ther 2009;8(12 Suppl):C192.

Shah N, et al. Targeting Drug-Resistant CML and Ph⁺⁺-ALL with the Spectrum Selective Protein Kinase Inhibitor XL228. Blood 2007 110:474;

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481