

Sotuletinib hydrochloride

Chemical Properties

CAS No. : 2222138-31-8

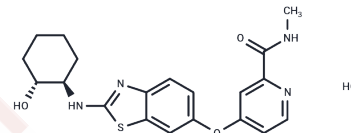
Formula: C₂₀H₂₃ClN₄O₃S

Molecular Weight: 434.94

Store at low temperature

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	Sotuletinib hydrochloride (BLZ945 HCl) is a selective, brain-penetrant CSF-1R (c-Fms) inhibitor (IC ₅₀ =1 nM), exhibiting 1000-fold greater selectivity than other receptor tyrosine kinase homologues. It elevates liver enzymes and induces Kupffer cell depletion, making it suitable for studying amyotrophic lateral sclerosis (ALS) and metastatic triple-negative breast cancer (TNBC).
Targets(IC50)	c-Fms,CSF-1R
In vitro	Methods: Bone marrow-derived macrophages (BMDMs) were treated with Sotuletinib hydrochloride (67nM-6700nM), and cell proliferation was assessed via MTT assay. Results: Sotuletinib hydrochloride significantly inhibited CSF-1-dependent proliferation and CSF-1R phosphorylation in BMDMs.[1]
In vivo	Methods: Sotuletinib hydrochloride (200 mg/kg, once daily) was administered to MMTV-PyMT mice via oral gavage to assess the effects of Sotuletinib hydrochloride on tumor growth, TAMs, and CD8+ T cells. Results: Sotuletinib hydrochloride treatment significantly decreased TAMs and tumor volume while enhancing the infiltration of CD8+ T cells.[2]

Solubility Information

Solubility	DMSO: 80 mg/mL (183.93 mM),Sonication is recommended. H ₂ O: 80 mg/mL (183.93 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 (7.59 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	2.2992 mL	11.4958 mL	22.9917 mL
5 mM	0.4598 mL	2.2992 mL	4.5983 mL
10 mM	0.2299 mL	1.1496 mL	2.2992 mL
50 mM	0.046 mL	0.2299 mL	0.4598 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

Pyonteck SM, et al. CSF-1R inhibition alters macrophage polarization and blocks glioma progression. *Nat Med.* 2013 Oct;19(10):1264-72.

Strachan DC, et al. CSF1R inhibition delays cervical and mammary tumor growth in murine models by attenuating the turnover of tumor-associated macrophages and enhancing infiltration by CD8+ T cells. *Oncoimmunology.* 2013 Dec 1;2(12):e26968.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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