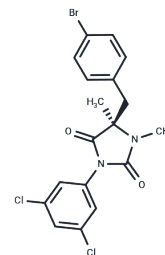


BIRT-377

Chemical Properties

CAS No. :	213211-10-0
Formula:	C ₁₈ H ₁₅ BrCl ₂ N ₂ O ₂
Molecular Weight:	442.13
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	BIRT-377 is a negative allosteric and orally bioavailable inhibitor of ICAM-1 and LFA-1 (K _i = 25.8 nM). BIRT-377 inhibits the production of IL-2 and can be used in studies about inflammatory and immune disorders.
Targets(IC50)	IL Receptor, Integrin, Interleukin

Solubility Information

Solubility	DMSO: 140 mg/mL (316.65 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Saline: < 10 mg/mL (22.62 mM), Lower concentrations may be soluble, but exact solubility limit is unknown. 10% DMSO+40% PEG300+5% Tween 80+45% Saline: 10 mg/mL (22.62 mM), Solution. <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	2.2618 mL	11.3089 mL	22.6178 mL
5 mM	0.4524 mL	2.2618 mL	4.5236 mL
10 mM	0.2262 mL	1.1309 mL	2.2618 mL
50 mM	0.0452 mL	0.2262 mL	0.4524 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

Tazawa K, Koutsogiannaki S, Chamberlain M, Yuki K. The effect of different anesthetics on tumor cytotoxicity by natural killer cells. *Toxicol Lett.* 2017 Jan 15;266:23-31.

Johnson A, Saunders MJ, Back TG. Stereodivergent synthesis of the LFA-1 antagonist BIRT-377 by porcine liver esterase desymmetrization and Curtius rearrangement. *Org Biomol Chem.* 2015 Feb 7;13(5):1463-9.

Hosseini BH, et al. Immune synapse formation determines interaction forces between T cells and antigen-presenting cells measured by atomic force microscopy. *Proc Natl Acad Sci U S A.* 2009 Oct 20;106(42):17852-7.

Kelly TA, et al. Cutting edge: a small molecule antagonist of LFA-1-mediated cell adhesion. *J Immunol.* 1999;163(10):5173-5177.

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