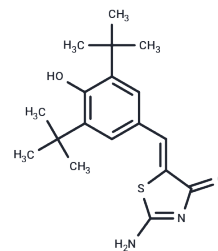


Darbufelone

Chemical Properties

CAS No. :	139226-28-1
Formula:	C ₁₈ H ₂₄ N ₂ O ₂ S
Molecular Weight:	332.46
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	Darbufelone (CI-1004) is a non-competitive dual inhibitor of PGF ₂ α and LTB ₄ . Dabfilon effectively inhibits PGHS-2 with a K _i of 10 μM and IC ₅₀ s of 0.19 μM and 20 μM for PGHS-2 and PGHS-1.
Targets(IC ₅₀)	LTR,Leukotriene Receptor,Prostaglandin Receptor
In vitro	Darbufelone (5 - 60 μM) increases the cell growth inhibitory effects in A549, H520 and H460 cell lines with IC ₅₀ s of 20, 21 and 15 μM[2].
In vivo	Darbufelone (80 mg/kg/day) decreases the tumor volumes in a time-dependent manner. Darbufelone (20 or 40 mg/kg/day) dos not show any significant inhibition of tumor weight. At necropsy, Darbufelone (80 mg/kg/day) reduces the tumor weight by 30.2%[2].

Solubility Information

Solubility	DMSO: 45 mg/mL (135.35 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: 2 mg/mL (6.02 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	3.0079 mL	15.0394 mL	30.0788 mL
5 mM	0.6016 mL	3.0079 mL	6.0158 mL
10 mM	0.3008 mL	1.5039 mL	3.0079 mL
50 mM	0.0602 mL	0.3008 mL	0.6016 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

Johnson AR, et al. Slow-binding inhibition of human prostaglandin endoperoxide synthase-2 with darbufelone, an isoform-selective antiinflammatory di-tert-butyl phenol. *Biochemistry*. 2001 Jun 26;40(25):7736-45.

Ye X, et al. Darbufelone, a novel anti-inflammatory drug, induces growth inhibition of lung cancer cells both in vitro and in vivo. *Cancer Chemother Pharmacol*. 2010 Jul;66(2):277-85.

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