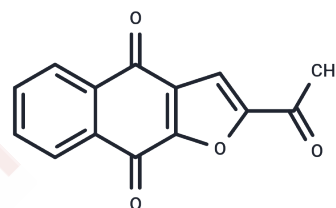


Napabucasin

Chemical Properties

CAS No. :	83280-65-3
Formula:	C ₁₄ H ₈ O ₄
Molecular Weight:	240.21
Appearance:	no data available
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year



Biological Description

Description	Napabucasin (BBI608) is an orally available Stat3 and Y cell stemness inhibitor.
Targets(IC50)	STAT
In vitro	Napabucasin downregulates stemness gene expression driven by Stat3 and cancer stemness properties, and effectively inhibits self-renewal of stemness-high cancer cells with IC50 ranged from 0.291~1.19 μ M, on inhibition on normal stem cells. [1]
In vivo	In mice bearing PaCa-2 xenografts, Napabucasin (20 mg/kg, i.p.) significantly inhibits tumor growth, relapse and metastasis. [1]
Cell Research	For cancer stem cells, spheres are dissociated and plated under cancer stem cell culture conditions on coated 96-well plates. After 72 h of culture, wells are dosed with the indicated compounds. Seventy-two hours or 24 h after dosing, CellTiter-Glo 2.0 is added to each well, and the luminescence is measured as described by the manufacturer. IC50 values are calculated by fitting a four parameter dose-response curve to normalized data using GraphPad Prism software. For bulk cells, cells are plated at 5,000 cells per well on 96-well plates. Twenty-four hours after plating, cells are treated with the indicated compounds. Viability is determined at 72 h as described above.(Only for Reference)

Solubility Information

Solubility	H ₂ O: < 1 mg/mL (insoluble or slightly soluble), DMSO: 6.88 mg/mL (28.64 mM),Sonication is recommended. acetonitrile: 0.8 mg/mL (3.33 mM),Sonication is recommended. Ethanol: < 1 mg/mL (insoluble or slightly soluble), (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.163 mL	20.8151 mL	41.6302 mL
5 mM	0.8326 mL	4.163 mL	8.326 mL
10 mM	0.4163 mL	2.0815 mL	4.163 mL
50 mM	0.0833 mL	0.4163 mL	0.8326 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.

Reference

Li Y, et al. Proc Natl Acad Sci U S A. 2015, 112(6), 1839-1844.

Xu S, Pan X, Mao L, et al. Phospho-Tyr705 of STAT3 is a therapeutic target for sepsis through regulating inflammation and coagulation. Cell Communication and Signaling. 2020, 18(1): 1-13.

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Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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