

EC 144

Chemical Properties

CAS No. : 911397-80-3

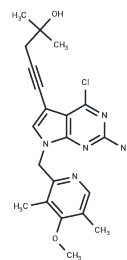
Formula: C₂₁H₂₄ClN₅O₂

Molecular Weight: 413.9

Storage: Keep away from moisture, Keep away from direct sunlight

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	EC 144, a second-generation selective inhibitor of Hsp90 (heat shock protein 90), inhibits tumor growth with an IC ₅₀ = 1.1 nM for Hsp90 α and an EC ₅₀ = 14 nM for degradation of Her-2 in MCF-7 cells.
Targets(IC ₅₀)	HSP
In vitro	EC 144 is a synthetic Hsp90 inhibitor, blocks LPS-induced TLR4 signaling in RAW 264.7 cells by inhibiting activation of ERK1/2, MEK1/2, JNK, and p38 MAPK but not NF- κ B. EC 144 inhibited CD4(+) T cell proliferation in both mouse and human mixed lymphocyte reactions (MLRs), indicating an immunosuppressive effect on adaptive immune activation. [1]
In vivo	In mice treated with EC 144, peritoneal CD11b(+) exudate cells showed reduced phosphorylation of tumor progression locus 2, MEK1/2, and ERK1/2 upon LPS challenge. This corresponded with resistance to LPS-induced systemic inflammation and suppressed TNF- α release. In a mouse collagen-induced arthritis model, EC 144 suppressed arthritis development, correlated with a reduction in antigen-specific antibody production and impaired activation of antigen-specific CD4(+) T cells. [1]

Solubility Information

Solubility	DMSO: 50 mg/mL (120.8 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 (4.83 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	2.416 mL	12.0802 mL	24.1604 mL
5 mM	0.4832 mL	2.416 mL	4.8321 mL
10 mM	0.2416 mL	1.208 mL	2.416 mL
50 mM	0.0483 mL	0.2416 mL	0.4832 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

Yun TJ et al. EC144, a synthetic inhibitor of heat shock protein 90, blocks innate and adaptive immune responses in models of inflammation and autoimmunity. J Immunol. 2011 Jan 1;186(1):563-75.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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