

IRG1-IN-1

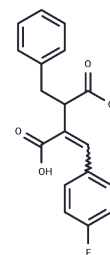
Chemical Properties

CAS No. : 2407652-42-8

Formula: C₁₈H₁₅F₀₄

Molecular Weight: 314.31

Storage: Keep away from direct sunlight, Keep away from moisture, Store at low temperature
 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	IRG1-IN-1, an itaconic acid derivative, inhibits Immune Response Gene 1 (IRG1) activity and is suitable for cancer, inflammation, and autoimmune disease research.
Targets(IC50)	Others
In vitro	IRG1-IN-1 (0.5 mM; 1 mM) partially inhibits the proliferation of C-IRG1-9 rat glioma cells [1]. IRG1-IN-1 (0.5 mM; 2 mM) reduces the production of itaconic acid and the secretion of TNF α from human monocyte-derived macrophages (hMDMs) stimulated with LPS [1]. IRG1-IN-1 (10 μ M) shows a decrease in trimethylation of histone 3 at lysine 4 (H3K4me3) in CR-activated hCD8+ T cells [1]. IRG1-IN-1 (10 nM) increases the proliferation of TCR-activated hCD8+ T cells [1].
In vivo	IRG1-IN-1 administered intraperitoneally at a dose of 0.2 mg/kg for 27 days demonstrates a significant anti-tumor effect in C57BL/6 mice [1].

Solubility Information

Solubility	DMSO: 80 mg/mL (254.53 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 (10.5 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	3.1816 mL	15.9079 mL	31.8157 mL
5 mM	0.6363 mL	3.1816 mL	6.3631 mL
10 mM	0.3182 mL	1.5908 mL	3.1816 mL
50 mM	0.0636 mL	0.3182 mL	0.6363 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

Adonia Papathanassiu, et al. Compositions and methods of using itaconic acid derivatives. Patent. US20210261495A1.

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