

IHMT-PI3K-455

Chemical Properties

CAS No. :

Formula: C₂₆H₂₁F₂N₇O₃

Molecular Weight: 517.49

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	IHMT-PI3K-455 (Compound 15u) is a potent, selective PI3K γ/δ dual inhibitor with IC ₅₀ values of 7.1 nM for PI3K γ and 0.57 nM for PI3K δ , exhibiting oral activity. This compound inhibits AKT phosphorylation and promotes tumor regression by recruiting and activating CD8+ T cells. It is utilized in cancer research [1].
Targets(IC50)	PI3K
In vitro	IHMT-PI3K-455 at a concentration of 1 μ M for 2 hours inhibited AKT phosphorylation mediated by PI3K γ/δ in RAW264.7 and Raji cells [1]. Additionally, when applied at the same concentration for 72 hours, it altered the polarization of M2 macrophages derived from THP-1 and BMDM cells [1].
In vivo	IHMT-PI3K-455 administered orally at a dose of 40 mg/kg once daily for 30 consecutive days inhibited tumor growth in the MC38 colorectal cancer murine allograft model [1]. This compound suppressed tumor proliferation by recruiting and activating an increased number of CD8+ cytotoxic T cells [1]. Additionally, pharmacokinetic parameters were assessed in Sprague-Dawley rats, revealing for a 1 mg/kg intravenous dose: C _{max} (1233 ng/mL), T _{max} (0.03 h), AUC _{0-∞} (477 hng/mL), T _{1/2} (1.59 h), CL (2.12 L/h/kg), V _z (4.80 L/kg); and for a 10 mg/kg oral dose: C _{max} (157 ng/mL), T _{max} (3.42 h), AUC _{0-∞} (838 hng/mL), T _{1/2} (2.71 h), CL (14.76 L/h/kg), V _z (56.02 L/kg), and F (17.6%).

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.9324 mL	9.662 mL	19.324 mL
5 mM	0.3865 mL	1.9324 mL	3.8648 mL
10 mM	0.1932 mL	0.9662 mL	1.9324 mL
50 mM	0.0386 mL	0.1932 mL	0.3865 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.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

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