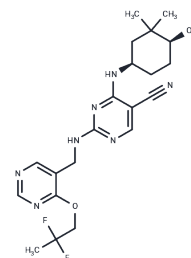


CC-90005

Chemical Properties

CAS No. : 1799574-70-1
Formula: C₂₁H₂₇F₂N₇O₂
Molecular Weight: 447.48
Appearance: no data available
Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year



Biological Description

Description	CC-90005 is a potent, selective and orally active inhibitor of protein kinase C-θ (PKC-θ), with an IC ₅₀ of 8 nM. CC-90005 shows selectivity for PKC-θ over PKC-δ (IC ₅₀ =4440 nM). CC-90005 can inhibit T cell activation by IL-2 expression[1].
In vitro	CC-90005 shows the exquisite selectivity of CC-90005, with IC ₅₀ s for all other family members of >3 μM[1]. CC-90005 is a moderate inhibitor of both CYP2C9 (IC ₅₀ =8 μM) and CYP2C19 (IC ₅₀ =5.9 μM) in human liver microsomes[1]. CC-90005 inhibits IL-2 expression in LRS_WBC human PBMCs, with an IC ₅₀ of 0.15 μM[1]. CC-90005 (1-10 μM; 24 h) inhibits T cell proliferation in PBMCs by 51% at 1 μM and 88% at 3 μM[1].
In vivo	CC-90005 (3-30 mg/kg; p.o. twice daily for 4 days) significantly reduces the popliteal lymph node (PLN) size in a model of chronic T cell activation[1]. CC-90005 (100 mg/kg; a single p.o.) significantly inhibits plasma and spleen IL-2 release by 51 and 54%, respectively[1]. CC-90005 exhibits reasonable oral bioavailability (66 and 46%) and C _{max} (1.18 and 1.2 μM) following oral administration (10 and 3 mg/kg) in rat and dog, respectively[1]. CC-90005 exhibits the mean residence time (0.52 and 2.0 h), CL (69.1 and 20.5 mL/min/kg) and V _{ss} (2.11 and 2.44 L/kg) following intravenous administration (2 and 1 mg/kg) in rat and dog, respectively[1].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.2347 mL	11.1737 mL	22.3474 mL
5 mM	0.4469 mL	2.2347 mL	4.4695 mL
10 mM	0.2235 mL	1.1174 mL	2.2347 mL
50 mM	0.0447 mL	0.2235 mL	0.4469 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

Papa P, et, al. Discovery of the Selective Protein Kinase C-θ Kinase Inhibitor, CC-90005. J Med Chem. 2021 Aug 26; 64(16):11886-11903.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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Tel:781-999-4286 E_mail:info@targetmol.com Address:36 Washington Street,Wellesley Hills,MA 02481