Data Sheet (Cat.No.T214347)

TargetMol

PDE4-IN-30

Chemical Properties

CAS No. :

Formula:

Molecular Weight:

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	PDE4-IN-30 is a selective PDE4 inhibitor with an IC50 of 2.7 nM for PDE4D2, targeting PDE4 through halogen bonding and metal coordination. It demonstrates at least 67 times greater selectivity for PDE4 compared to other PDE subfamilies and is applicable in research for idiopathic pulmonary fibrosis.
In vitro	PDE4-IN-30 (compound 13c), at concentrations of 5 μM to 20 μM for 48 hours, effectively inhibits TGF-β1-induced fibroblast-to-myofibroblast transition (FMT) and epithelial-mesenchymal transition (EMT) in MRC-5 and A549 cells. Additionally, it significantly suppresses TGF-β1-induced proliferation and migration of A549 cells at the same concentrations and duration. PDE4-IN-30 also demonstrates good cellular permeability and favorable drug-like properties in Caco-2 cells.
In vivo	PDE4-IN-30 (compound 13c), administered at 2.5 mg/kg via intraperitoneal injection for three weeks, has been shown to ameliorate lung fibrosis induced by Bleomycin (BLM) in C57BL/6J mice aged 6-8 weeks.

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