Data Sheet (Cat.No.T79527)

TargetMol

BET BD2-IN-1

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	BET BD2-IN-1 (compound 45) is a potent and selective BET BD2 inhibitor with an IC50 value of 1.6 nM. It suppresses Th17 cell differentiation by reducing the activation of STAT3 and NF-κB, making it relevant for psoriasis and inflammatory bowel disease (IBD) research [1].
Targets(IC50)	Epigenetic Reader Domain
In vitro	BET BD2-IN-1 at a concentration of 500 nM effectively inhibits Th17 cell differentiation, exhibiting greater selectivity for BD2 over BD1 [1]. Additionally, at 4 nM, BET BD2-IN-1 interacts with BRD4 BD2 in a whole-cell context, demonstrating a stable effect on BRD4 BD2 [1].
In vivo	BET BD2-IN-1 administered intravenously at 20 mg/kg once daily for seven consecutive days inhibited the expression of p-STAT3 and p-NF-κB proteins in the skin tissues of mice, effectively ameliorating pathological alterations in a psoriasis mouse model [1]. The same treatment regimen significantly reduced the Disease Activity Index (DAI) scores in a DSS-induced inflammatory bowel disease (IBD) mouse model [1]. The pharmacokinetic analysis of BET BD2-IN-1 in Sprague-Dawley rats indicated parameters including AUC(0-t) (ng•h/mL), C0 (ng/mL), T1/2 (h), CL (mL/kg/min), and Vdss (L/kg) [1].

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