

NIK-IN-3

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	NIK-IN-3 is a potent, orally active inhibitor of NF- κ B-inducing kinase (NIK) with an IC50 value of 5.2 nM. It effectively suppresses activation of the non-canonical NF- κ B pathway and inhibits the secretion of pro-inflammatory cytokines, including TNF- α , IL-6, IL-1 β , and the chemokine CXCL12. NIK-IN-3 demonstrates significant anti-inflammatory effects in LPS-induced sepsis and DSS-induced colitis mouse models. This compound is applicable in inflammation-related research, such as studies on colitis.
Targets(IC50)	NF- κ B,CXCR
In vitro	NIK-IN-3 (Compound 38) effectively inhibits the activation of the non-canonical NF- κ B pathway in HEK293 cells at concentrations between 1-5 μ M. At 100 nM over 3 days, it suppresses Th17 cell differentiation in murine naive CD4+ T cells without significant cytotoxicity. Additionally, at 5 μ M for 22 hours, NIK-IN-3 inhibits the secretion of inflammatory factors such as TNF- α , IL-6, IL-1 β , and CXCL12 in LPS and CD40-induced RAW264.7 cells.
In vivo	NIK-IN-3 (Compound 38) administered intraperitoneally at 10 mg/kg enhances survival rates and decreases inflammation in mice models of LPS-induced sepsis by inhibiting the non-canonical NF- κ B pathway. Additionally, oral administration of NIK-IN-3 at 25-50 mg/kg once daily for 7 days alleviates colitis symptoms in C57BL/6 mice (DSS-induced colitis model).

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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