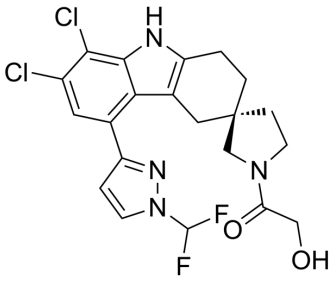
cGAS-IN-3

Cat. No.:	HY-162459
Molecular Formula:	$C_{21}H_{20}Cl_2F_2N_4O_2$
Molecular Weight:	469.31
Target:	Cyclic GMP-AMP Synthase
Pathway:	Immunology/Inflammation
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	cGAS-IN-3 (compound 30d-S) is an orally active cyclic GMP-AMP synthase (Cyclic GMP-AMP Synthase/cGAS) inhibitor with good plasma exposure and low clearance. cGAS-IN-3 has anti-inflammatory activity and can significantly reduce lung inflammation in rats[1].br/[16][1].
IC_{50} & Target	cGAS[1]
In Vitro	The inhibitory potency (IC_{50}) of cGAS-IN-3 against cGAS in mouse RAW-Lucia cells is 2.87 μM[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	cGAS-IN-3 (30 mg/kg; po; single dose) has preventive effects on LPS-induced acute lung injury (ALI) mouse model and can effectively reduce inflammation[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	LPS-induced acute lung injury (ALI) mice model[1]
Dosage:	30 mg/kg
Administration:	po; single dose and 0.5 h prior to ALI modeling; while ALI was induced by intratracheal instillation of 2 mg/kg LPS
Result:	Alleviated the severity of lung injury, presented by the ameliorated pathological changes Relieved pulmonary edema, and the reduced number of immune cells in BALF.

REFERENCES

[1]. Chen M, et al. Design, Synthesis, and Pharmacological Evaluation of Spiro[carbazole-3,3'-pyrrolidine] Derivatives as cGAS Inhibitors for Treatment of Acute Lung Injury. J Med Chem. 2024 Apr 25;67(8):6268-6291.

Caution: Product has not been fully validated for medical applications. For research use only.

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