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Produktinformation

- Forschungsprodukte & Biochemikalien
- Zellkultur & Verbrauchsmaterial
- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!

Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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LXRβ agonist-4

Cat. No.: HY-152262

Molecular Formula: $C_{31}H_{31}FN_2O_7S$

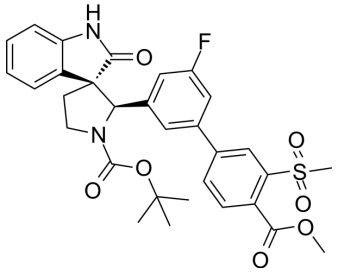
Molecular Weight: 594.65

Target: LXR

Pathway: Metabolic Enzyme/Protease; Vitamin D Related/Nuclear Receptor

Storage:

Powder	-20°C	3 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (168.17 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	1.6817 mL	8.4083 mL	16.8166 mL
	5 mM	0.3363 mL	1.6817 mL	3.3633 mL
	10 mM	0.1682 mL	0.8408 mL	1.6817 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (4.20 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

LXRβ agonist-4 is a potent, orally active Liver X receptors (LXRs) agonist with an IC_{50} value of 0.0078 μM for LXRβ. LXRβ agonist-4 inhibits RANKL-induced osteoclast differentiation and bone resorption. LXRβ agonist-4 can be used in research of osteoporosis[1].

IC_{50} & Target

EC50: 7.8 nM (LXRβ)[1]

In Vitro

LXRβ agonist-4 (compound B9; 0.03-10 μM) inhibits RANKL-induced osteoclastogenesis and bone resorption[1].
LXRβ agonist-4 (1 μM; 0-24 h) regulates osteoclast relative gene expression and downstream of the LXR[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Western Blot Analysis[1]

Cell Line:	Osteoclast

Concentration:	1 μM
Incubation Time:	0, 2, 4, 6, 12, and 24 hours
Result:	Increased ABCG1 protein and decreased LDLR protein levels.

In Vivo

LXRβ agonist-4 (compound B9; 10 mg/kg; i.g.) inhibits bone loss in ovariectomized female C57BL/6 mice[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	female C57BL/6 mice (20-25 g; 8 week old)[1]
Dosage:	10 mg/kg
Administration:	oral gavage; daily, for 4 weeks
Result:	Reduced ovariectomy-induced bone resorption. Protected against OVX-induced bone loss by inhibiting the osteoclast number and activity.

REFERENCES

[1]. Chen H, et, al. Discovery of Spiro[pyrrolidine-3,3'-oxindole] LXRβ Agonists for the Treatment of Osteoporosis. J Med Chem. 2023 Jan 12;66(1):752-765.

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