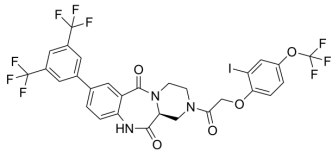
RXFP2 agonist 2

Cat. No.:	HY-150186
CAS No.:	2971704-85-3
Molecular Formula:	$C_{29}H_{19}F_9IN_3O_5$
Molecular Weight:	787.37
Target:	RXFP Receptor
Pathway:	GPCR/G Protein
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

RXFP2 agonist 2 is a selective，orally active and allosteric RXFP2 agonist with an EC_{50} value of 0.38 μM. RXFP2 agonist 2 induces osteoblast mineralization. RXFP2 agonist 2 increases bone formation in female mice. RXFP2 agonist 2 has the potential for the research of osteoporosis[1].

IC_{50} & Target

EC_{50}: 0.38 μM (RXFP2)[1]

In Vitro

RXFP2 agonist 2 (Compound 6641) (1, 3, 5 μM; 14 days) induces osteoblast mineralization at 3 and 5 μM with no cytotoxicity in HCO cells[1].

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

Cell Cytotoxicity Assay[1]

Cell Line:	HCO cells
Concentration:	0-100 μM
Incubation Time:	14 days
Result:	Induced mineralization of primary human osteoblasts and is non-cytotoxic.

In Vivo

RXFP2 agonist 2 (10 mg/kg; p.o.; 3 times per week for 8 weeks) promotes bone formation in female mice[1].

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

Animal Model:	8-week-old WT C57BL/6 J female mice[1]
Dosage:	3 mg/kg for i.v.; 10 mg/kg for p.o.
Administration:	I.v. or p.o.
Result:	Exhibited a half-life of between 4-6.5 h depending on the route of administration, with no accumulation at 10 mg/kg, and oral bioavailability around 25-31%.

Animal Model:	8-week-old WT C57BL/6 J female mice[1]

Dosage:	10 mg/kg
Administration:	P.o.; 3 times per week for 8 weeks
Result:	Increased bone formation in mouse with significantly increased in Tb.N and Tb.Th, and increased BV/TV and decreased Tb.Sp.

REFERENCES

[1]. Esteban-Lopez M, et al. Discovery of small molecule agonists of the Relaxin Family Peptide Receptor 2. Commun Biol. 2022 Nov 4;5(1):1183.

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