**Proteins** 

# **Product** Data Sheet

## DS69910557

Cat. No.: HY-148350 Molecular Formula:  $C_{32}H_{33}Cl_{2}FN_{4}O_{3}$ 

Molecular Weight: 611.53

Target: Thyroid Hormone Receptor

Pathway: Vitamin D Related/Nuclear Receptor

Storage: Powder -20°C 3 years

> 4°C 2 years

-80°C In solvent 6 months

> -20°C 1 month

### **SOLVENT & SOLUBILITY**

In Vitro

DMSO: 100 mg/mL (163.52 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	1.6352 mL	8.1762 mL	16.3524 mL
	5 mM	0.3270 mL	1.6352 mL	3.2705 mL
	10 mM	0.1635 mL	0.8176 mL	1.6352 mL

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

### **BIOLOGICAL ACTIVITY**

Description	DS69910557 is a potent, selective and orally activehuman parathyroid hormone receptor 1 (hPTHR1) antagonist. DS69910557 has antagonistic activity for PTHR1 with an IC <sub>50</sub> value of 0.08 $\mu$ M. DS69910557 can be used for the research of hyperparathyroidism, hypercalcemia of malignancy and osteoporosis <sup>[1]</sup> .		
IC <sub>50</sub> & Target	IC50: 0.08 μM (PTHR1) <sup>[1]</sup> .		
In Vitro	DS69910557 (compound 19e) has highly potent antagonistic activity for PTHR1 with an IC <sub>50</sub> value of 0.08 $\mu$ M <sup>[1]</sup> . DS69910557 (3 $\mu$ M) exhibits excellent selectivity against human ether-a-go-go-related-gene (hERG) channel <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.		
In Vivo	DS69910557 (compound 19e) (p.o.; 5mg/kg) has potency to decrease the plasma calcium concentration in rats in vivo <sup>[1]</sup> .  MCE has not independently confirmed the accuracy of these methods. They are for reference only.  Animal Model: Rats <sup>[1]</sup>		

Dosage:	5mg/kg
Administration:	PO
Result:	Showed excellent PK profile, high maximum plasma concentration and plasma exposure in rats.

#### **REFERENCES**

[1]. Yoshikazu Arai, et al. Lead optimization of pyrido[2,3-d][1]benzazepin-6-one derivatives leading to the discovery of a potent, selective, and orally available human parathyroid hormone receptor 1 (hPTHR1) antagonist (DS69910557). Bioorg Med Chem. 2022 Jun 15;64:116763.

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

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