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Produktinformation

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

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See the following pages for more information!

Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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Eprotirome

Cat. No.: HY-10473

CAS No.: 355129-15-6

Molecular Formula: $C_{18}H_{17}Br_2NO_5$

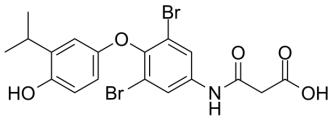
Molecular Weight: 487.14

Target: Thyroid Hormone Receptor

Pathway: 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 : 125 mg/mL (256.60 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	2.0528 mL	10.2640 mL	20.5280 mL
	5 mM	0.4106 mL	2.0528 mL	4.1056 mL
	10 mM	0.2053 mL	1.0264 mL	2.0528 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: ≥ 2.08 mg/mL (4.27 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.08 mg/mL (4.27 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (4.27 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Eprotirome (KB2115) is a liver-selective thyroid hormone receptor (TR) agonist. KB2115 has modestly higher affinity for TRβ than for TRα. Eprotirome reduces low-density lipoprotein (LDL) cholesterol concentrations. Eprotirome can be used for dyslipidemias and obesity research[1][2].

IC_{50} & Target

Thyroid hormone receptor[1]

In Vivo

Eprotirome is a liver-selective thyroid hormone receptor agonist. Histological analysis of livers from mice treated with Eprotirome reveals that Eprotirome elicits a near complete elimination of lipid filled vacuoles that are characteristic of the

livers from untreated control mice. Eprotirome treated mice also exhibit increased fasting glucose, but Eprotirome does not increase fasting insulin levels. Glucose levels of mice treated with Eprotirome continues to increase over time, leading to pronounced hyperglycemia by the end of the study. Temperature of mice treated with Eprotirome is decreased relative to untreated control mice[1].

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

PROTOCOL

Animal Administration [1]

Twelve-week old male ob/ob mice are used in this study. A catheter is implanted into the right internal jugular vein before the hyperinsulinemic-euglycemic clamp. After recovery, mice are administered Eprotirome (0.3 mg/kg) via intraperitoneal injection for 10 days. On the day of the clamp experiment, conscious, overnight-fasted mice receive a primed (10 μCi) and constant rate intravenous infusion (0.1 μCi /min) of [3-^{3}H] glucose to measure basal glucose turnover. After 60 to 75 minutes of labeled glucose infusion, the hyperinsulinemic-euglycemic clamp is performed with continuous infusion of insulin (12 mU/kg/min) and variable infusion of 25% glucose to maintain euglycemia (~120 mg/dL). Blood samples are collected by tail bleeding (approximately every 10 min) to measure blood glucose concentrations[1].

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

REFERENCES

[1]. Martagón AJ, et al. The amelioration of hepatic steatosis by thyroid hormone receptor agonists is insufficient to restore insulin sensitivity in ob/ob mice. PLoS One. 2015 Apr 7;10(4):e0122987.

[2]. Rosalba Senese, et al. Thyroid hormone metabolites and analogues. Endocrine. 2019 Oct;66(1):105-114.

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