Darglitazone

Cat. No.: HY-120160

CAS No.: 141200-24-0

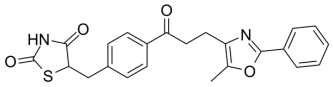
Molecular Formula: $C_{23}H_{20}N_2O_4S$

Molecular Weight: 420.48

Target: PPAR

Pathway: Cell Cycle/DNA Damage; Vitamin D Related/Nuclear Receptor

Storage: 4°C, protect from light
* In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 50 mg/mL (118.91 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.3782 mL	11.8912 mL	23.7823 mL
	5 mM	0.4756 mL	2.3782 mL	4.7565 mL
	10 mM	0.2378 mL	1.1891 mL	2.3782 mL

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

BIOLOGICAL ACTIVITY

Description

Darglitazone (CP-86325), a thiazolidinedione, is a potent, selective, and orally active PPAR-γ agonist. Darglitazone is effective in controlling blood glucose and lipid metabolism, and can be used for type II diabetes research[1].

IC_{50} & Target

PPAR-γ

In Vitro

In cell lines representing white (3T3-L1 and 3T3-F442A) and brown (HIB-1B) adipose tissues and skeletal muscle (L6), within 4 h of exposing these cells to 30 μM Darglitazone, there is an increase in uncoupling protein 2 (UCP2) mRNA which reached a plateau of 5-10 times the basal in about 8 h. Darglitazone can stimulate the expression of UCP2 gene probably via PPAR-γ[2].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

Darglitazone treatment restores euglycemia and normalized elevated corticosterone, triglycerides, and very-low-density lipoprotein levels. Darglitazone dramatically reduces the infarct size in the ob/ob mice at 24 h of recovery. Darglitazone treatment restores acute cerebral inflammatory responses that were absent in the diabetic mice and profoundly improved their recovery from hypoxic-ischemic (H/I) insult[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Male diabetic ob/ob mice[1]
Dosage:	1 mg/kg
Administration:	Oral administration; daily; for 7 days
Result:	Normalized blood glucose and reduced circulating triglycerides (TG) and very-low-density lipoproteins (VLDL) in diabetic ob/ob mice without having any effect in the nondiabetic mice.

REFERENCES

[1]. Rashmi Kumari, et al. The PPAR-gamma agonist, darglitazone, restores acute inflammatory responses to cerebral hypoxia-ischemia in the diabetic ob/ob mouse. J Cereb Blood Flow Metab. 2010 Feb;30(2):352-60.

[2]. A Camirand, et al. Thiazolidinediones stimulate uncoupling protein-2 expression in cell lines representing white and brown adipose tissues and skeletal muscle. Endocrinology. 1998 Jan;139(1):428-31.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA