Dazoxiben

Cat. No.: HY-106067A

CAS No.: 74226-22-5

Molecular Formula: $C_{12}H_{13}ClN_2O_3$

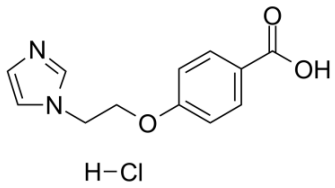
Molecular Weight: 268.7

Target: Prostaglandin Receptor

Pathway: GPCR/G Protein

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 62.5 mg/mL (232.60 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	3.7216 mL	18.6081 mL	37.2162 mL
	5 mM	0.7443 mL	3.7216 mL	7.4432 mL
	10 mM	0.3722 mL	1.8608 mL	3.7216 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 (7.74 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.08 mg/mL (7.74 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (7.74 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Dazoxiben is a potent and orally active thromboxane (TX) synthase inhibitor[1].

IC_{50} & Target

Thromboxane (TX) synthase[1]

In Vitro

Dazoxiben inhibits TXB2 production in clotting human whole blood with an IC_{50} of 0.3 μM and causes parallel enhancement of PGE2 greater than PGF2 alpha greater than 6-keto-PGF1 alpha production[1].
Dazoxiben inhibits TXB2 production in rat kidney glomeruli with an IC_{50} of 1.60 μM) than in rat whole blood (IC_{50}= 0.32μM),

	and is not associated with changes in PGE2, PGF2 alpha and 6-keto-PGF1 alpha production[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Dazoxiben (intraperitoneal administration; 100 μg/kg) produces a marked prolongation of the tail bleeding time with 96.8 ± 10.8 secs[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Patrignani P, et al. Differential effects of dazoxiben, a selective thromboxane-synthase inhibitor, on platelet and renal prostaglandin-endoperoxide metabolism.J Pharmacol Exp Ther. 1984 Feb;228(2):472-7.

[2]. Yu SM, et al. Pharmacological characterization of cinnamophilin, a novel dual inhibitor of thromboxane synthase and thromboxane A2 receptor.Br J Pharmacol. 1994 Mar;111(3):906-12.

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