4'-Hydroxy diclofenac

Cat. No.: HY-15550

CAS No.: 64118-84-9

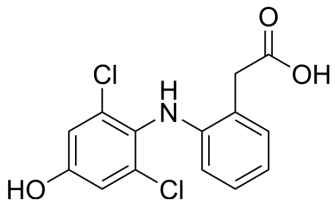
Molecular Formula: $C_{14}H_{11}Cl_2NO_3$

Molecular Weight: 312.15

Target: Drug Metabolite

Pathway: Metabolic Enzyme/Protease

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



SOLVENT & SOLUBILITY

In Vitro

DMSO : 10 mg/mL (32.04 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	3.2036 mL	16.0179 mL	32.0359 mL
	5 mM	0.6407 mL	3.2036 mL	6.4072 mL
	10 mM	0.3204 mL	1.6018 mL	3.2036 mL

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

BIOLOGICAL ACTIVITY

Description

4'-Hydroxy diclofenac is an orally active metabolite of Diclofenac (HY-15036) by cytochrome P450 2C9 (CYP2C9). 4'-Hydroxy diclofenac has anti-inflammatory and analgesic properties[1][2].

In Vivo

A single oral administration of Diclofenac to humanized mice, the unchanged drug in plasma peaks at 0.25 hour and then declines with a half-life ($t_{1/2}$) of 2.4 hours. 4'-Hydroxy diclofenac also peaks at 0.25 hour and is undetectable within 24 hours. The plasma concentration of unchanged 4'-Hydroxy diclofenac peaks at 0.25 hour and declines rapidly in Humanized chimeric mice received of 4'-Hydroxy diclofenac (10 mg/kg; a single oral)[2].

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

REFERENCES

[1]. J Shimamoto, et al. Lack of Differences in Diclofenac (A Substrate for CYP2C9) Pharmacokinetics in Healthy Volunteers With Respect to the Single CYP2C9*3 Allele. Eur J Clin Pharmacol. 2000 Apr;56(1):65-8.

[2]. Hidetaka Kamimura, et al. Formation of the Accumulative Human Metabolite and Human-Specific Glutathione Conjugate of Diclofenac in TK-NOG Chimeric Mice With Humanized Livers. Drug Metab Dispos. 2015 Mar;43(3):309-16.

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