Product Data Sheet

Chlorzoxazone

Cat. No.:HY-B1462CAS No.:95-25-0Molecular Formula: $C_7H_4CINO_2$ Molecular Weight:169.57

Target: Cytochrome P450

Pathway: Metabolic Enzyme/Protease

Storage: Powder -20°C 3 years

4°C 2 years

In solvent -80°C 2 years

-20°C 1 year

SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 100 mg/mL (589.73 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	5.8973 mL	29.4863 mL	58.9727 mL
	5 mM	1.1795 mL	5.8973 mL	11.7945 mL
	10 mM	0.5897 mL	2.9486 mL	5.8973 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: ≥ 2.5 mg/mL (14.74 mM); Clear solution
- 2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (14.74 mM); Clear solution

BIOLOGICAL ACTIVITY

DescriptionChlorzoxazone is a centrally acting muscle relaxant used to treat muscle spasm and the resulting pain or discomfort. It acts on the spinal cord by depressing reflexes. Chlorzoxazone is currently being used as a marker substrate in vitro/vivo studies to

quantify cytochrome P450 2E1 (CYP2E1) activity in humans.

IC₅₀ & Target CYP2

CUSTOMER VALIDATION

- Comput Struct Biotec. 2023 Feb 24.
- Int Immunopharmacol. 2020 Nov;88:106790.

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REFERENCES

[1]. Yamamura Y, et al. Comprehensive kinetic analysis and influence of reaction components for chlorzoxazone 6-hydroxylation in human liver microsomes with CYP antibodies. Xenobiotica. 2015 Apr;45(4):353-360.

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

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