Product Data Sheet

Naftidrofuryl oxalate

Cat. No.:HY-B1107CAS No.:3200-06-4Molecular Formula: $C_{26}H_{35}NO_7$ Molecular Weight:473.56

Target: 5-HT Receptor

Pathway: GPCR/G Protein; Neuronal Signaling

Storage: 4°C, sealed storage, away from moisture

* In solvent: -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)

SOLVENT & SOLUBILITY

In Vitro DMSO : ≥ 100 mg/mL (211.17 mM)

H₂O: 100 mg/mL (211.17 mM; Need ultrasonic)

* "≥" means soluble, but saturation unknown.

| Preparing Stock Solutions | Solvent Mass Concentration | 1 mg | 5 mg | 10 mg |
|------------------------------|-------------------------------|-----------|------------|------------|
| | 1 mM | 2.1117 mL | 10.5583 mL | 21.1166 mL |
| | 5 mM | 0.4223 mL | 2.1117 mL | 4.2233 mL |
| | 10 mM | 0.2112 mL | 1.0558 mL | 2.1117 mL |

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

In Vivo

- 1. Add each solvent one by one: PBS Solubility: 50 mg/mL (105.58 mM); Clear solution; Need ultrasonic
- 2. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.5 mg/mL (5.28 mM); Clear solution
- 3. Add each solvent one by one: 10% DMSO >> 90% (20% SBE- β -CD in saline) Solubility: \geq 2.5 mg/mL (5.28 mM); Clear solution

BIOLOGICAL ACTIVITY

| Description | Naftidrofuryl oxalate (Nafronyl oxalate salt) is a drug used in the management of peripheral and cerebral vascular disorders as a vasodilator, enhance cellular oxidative capacity, and may also be a 5-HT2 receptor antagonist. | |
|---------------------------|--|--|
| IC ₅₀ & Target | 5-HT ₂ Receptor | |
| In Vitro | Naftidrofuryl oxalate (Nafronyl oxalate salt) may be effective for relieving the pain of muscle cramps ^[1] . Naftidrofuryl oxalate (Nafronyl oxalate salt) is the only vasoactive drug for peripheral arterial disease (PAD) which is likely | |

be cost-effective^[2].

Naftidrofuryl oxalate (Nafronyl oxalate salt) is ranked first for both maximum walking distance (MWD) and pain-free walking distance (PFWD) (probability of 0·947 and 0·987, respectively, of being the best treatment) followed by cilostazol and pentoxifylline. Naftidrofuryl oxalate (Nafronyl oxalate salt) is effective treatments for claudication, Naftidrofuryl oxalate is likely to be the most effective, with minimal serious adverse events^[3].

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

REFERENCES

[1]. Naftidrofuryl

[2]. Meng Y, et al. Cost-effectiveness of cilostazol, naftidrofuryl oxalate, and pentoxifylline for the treatment of intermittent claudication in people with peripheral arterial disease. Angiology. 2014 Mar;65(3):190-197.

[3]. Stevens JW, et al. Systematic review of the efficacy of cilostazol, naftidrofuryl oxalate and pentoxifylline for the treatment of intermittent claudication. Br J Surg. 2012 Dec;99(12):1630-1638.

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

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