(Rac)-Atropine-d_3

Cat. No.: HY-B1205S

CAS No.: 1276197-36-4

Molecular Formula: $C_{17}H_{20}D_3NO_3$

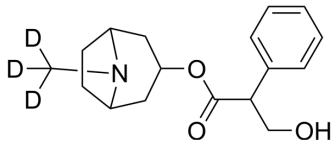
Molecular Weight: 292.39

Target: mAChR; Endogenous Metabolite; Isotope-Labeled Compounds

Pathway: GPCR/G Protein; Neuronal Signaling; Metabolic Enzyme/Protease; Others

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 : 50 mg/mL (171.00 mM; Need ultrasonic)
Ethanol : ≥ 16 mg/mL (54.72 mM)
PBS (pH 7.2) : ≥ 10 mg/mL (34.20 mM)
DMSO : ≥ 10 mg/mL (34.20 mM)
DMF : ≥ 2 mg/mL (6.84 mM)
* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	3.4201 mL	17.1004 mL	34.2009 mL
5 mM	0.6840 mL	3.4201 mL	6.8402 mL
10 mM	0.3420 mL	1.7100 mL	3.4201 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: ≥ 1.25 mg/mL (4.28 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 1.25 mg/mL (4.28 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 1.25 mg/mL (4.28 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

(Rac)-Atropine-d_3 is the deuterium labeled (Rac)-Atropine[1].

In Vitro

Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as

tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs[1].

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

REFERENCES

[1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. Ann Pharmacother. 2019;53(2):211-216.

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