

Product Data Sheet

Product Name: Tropicamide-d3

Cat. No.: GC71641

Chemical Properties

Cas. No. 2673270-13-6

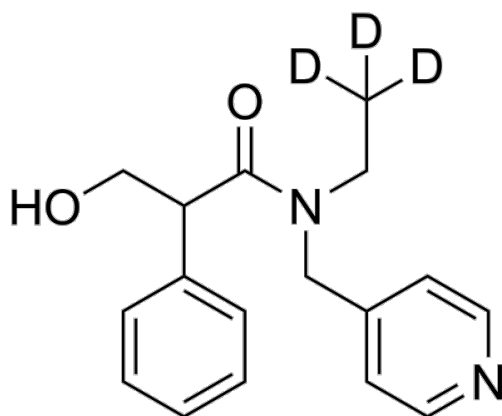
Formula $C_{17}H_{17}D_3N_2O_2$ M.Wt 287.37

Solubility DMSO : 100 mg/mL (347.98 mM; Need ultrasonic); Ethanol : ≥ 30 mg/mL (104.40 mM); DMSO : ≥ 30 mg/mL (104.40 mM); DMF : ≥ 30 mg/mL (104.40 mM); Ethanol:PBS(pH 7.2) (1:1) : ≥ 0.5 mg/mL (1.74 mM)

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure



Background

Tropicamide-d3 is the deuterium labeled Tropicamide[1]. Tropicamide (Ro 1-7683) is a selective M4 muscarinic acetylcholine receptor antagonist. Tropicamide produces short acting mydriasis (dilation

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

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

Product Data Sheet

of the pupil) and cycloplegia when applied as eye drops[2][3].

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].

References:

- [1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. Ann Pharmacother. 2019 Feb;53(2):211-216.
- [2]. Lazareno, S., N.J. Buckley, and F.F. Roberts, Characterization of muscarinic M4 binding sites in rabbit lung, chicken heart, and NG108-15 cells. Mol Pharmacol, 1990. 38(6): p. 805-15.
- [3]. Hernandez, M., et al., Different muscarinic receptor subtypes mediating the phasic activity and basal tone of pig isolated intravesical ureter. Br J Pharmacol, 1993. 110(4): p. 1413-20.

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

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA