# Torsemide-$d_7$

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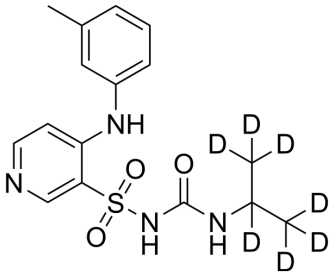
|---|---|
| **Cat. No.:** | HY-B0247S |
| **CAS No.:** | 1189375-06-1 |
| **Molecular Formula:** | $C_{16}H_{13}D_7N_4O_3S$ |
| **Molecular Weight:** | 355.46 |
| **Target:** | Isotope-Labeled Compounds |
| **Pathway:** | Others |
| **Storage:** | Powder -20°C 3 years<br>4°C 2 years<br>In solvent -80°C 6 months<br>-20°C 1 month |



## SOLVENT & SOLUBILITY

**In Vitro**

DMSO : 100 mg/mL (281.33 mM; Need ultrasonic)

| Preparing Stock Solutions | Solvent / Mass / Concentration | 1 mg | 5 mg | 10 mg |
|---|---|---|---|---|
| | 1 mM | 2.8133 mL | 14.0663 mL | 28.1326 mL |
| | 5 mM | 0.5627 mL | 2.8133 mL | 5.6265 mL |
| | 10 mM | 0.2813 mL | 1.4066 mL | 2.8133 mL |

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

## BIOLOGICAL ACTIVITY

**Description**

Torsemide-$d_7$ is the deuterium labeled Torsemide. Torsemide (Torasemide) is an orally active loop diuretic. Torsemide has anti-aldosterone and vasodilatory effects. Torsemide also can be used for the research of heart failure, renal disease and hepatic cirrhosis[1][1][3].

**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.

[2]. Ishido, H., et al. Torasemide for the Treatment of Heart Failure. Cardiovascular & Hematological Disorders-Drug Targets. 2008. 8(2), 127–132.

[3]. Goodfriend, T. L., et al. Torsemide inhibits aldosterone secretion in vitro. Life Sciences. 1998. 63(3), PL45–PL50.

[4]. H A Friedel, et al. Torasemide. A review of its pharmacological properties and therapeutic potential. Drugs. 1991 Jan;41(1):81-103.

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

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