Urethane-d5

Cat. No.: HY-B1207S

CAS No.: 73962-07-9

Molecular Formula: $C_3H_2D_5NO_2$

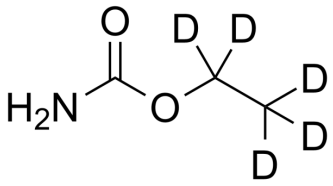
Molecular Weight: 94.12

Target: Bacterial; Parasite

Pathway: Anti-infection

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 : 100 mg/mL (1062.47 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	10.6247 mL	53.1237 mL	106.2473 mL
	5 mM	2.1249 mL	10.6247 mL	21.2495 mL
	10 mM	1.0625 mL	5.3124 mL	10.6247 mL

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

BIOLOGICAL ACTIVITY

Description

Urethane-d5 (Ethyl carbamate-d5) is the deuterium labeled Urethane. Urethane (Ethyl carbamate), the ethyl ester of carbamic acid, is a byproduct of fermentation found in various food products. Urethane has the ability to suppress bacterial, protozoal, sea urchin egg, and plant tissue growth in vitro[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.

[2]. K J Field, et al. Hazards of urethane (ethyl carbamate): a review of the literature. Lab Anim. 1988 Jul;22(3):255-62.;R E Sotomayor, et al. Mutagenicity, metabolism, and DNA interactions of urethane. Toxicol Ind Health. 1990 Jan;6(1):71-108.

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