Lauric acid-d_{23}

Cat. No.: HY-Y0366S1

CAS No.: 59154-43-7

Molecular Formula: $C_{12}HD_{23}O_2$

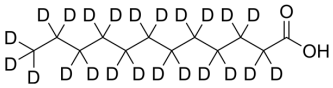
Molecular Weight: 223.46

Target: Bacterial; Endogenous Metabolite

Pathway: Anti-infection; Metabolic Enzyme/Protease

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 (447.51 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	4.4751 mL	22.3754 mL	44.7507 mL
	5 mM	0.8950 mL	4.4751 mL	8.9501 mL
	10 mM	0.4475 mL	2.2375 mL	4.4751 mL

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

BIOLOGICAL ACTIVITY

Description

Lauric acid-d_{23}3 is the deuterium labeled Lauric acid. Lauric acid is a middle chain-free fatty acid with strong bactericidal properties. The EC50s for P. acnes, S.aureus, S. epidermidis, are 2, 6, 4 μg/mL, respectively.

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.

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

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