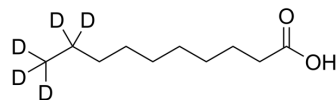


Decanoic acid-d₅

Cat. No.:	HY-W015309S3		
CAS No.:	1219803-00-5		
Molecular Formula:	C ₁₀ H ₁₅ D ₅ O ₂		
Molecular Weight:	177.3		
Target:	iGluR		
Pathway:	Membrane Transporter/Ion Channel; Neuronal Signaling		
Storage:	Pure form	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



BIOLOGICAL ACTIVITY

Description	Decanoic acid-d ₅ is the deuterium labeled Decanoic acid. Decanoic acid, a component of medium chain triglycerides, is a brain-penetrant and non-competitive inhibitor of AMPA receptor. Decanoic acid has antiseizure effects[1][2][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]. Boison D, et, al. New insights into the mechanisms of the ketogenic diet. *Curr Opin Neurol*. 2017 Apr;30(2):187-192.
- [2]. Chang P, et al. Seizure control by decanoic acid through direct AMPA receptor inhibition. *Brain*. 2016 Feb;139(Pt 2):431-43.
- [3]. Kim S, et, al. Selective production of decanoic acid from iterative reversal of β-oxidation pathway. *Biotechnol Bioeng*. 2018 May;115(5):1311-1320.
- [4]. 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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