

Octacosane-d₅₈

Cat. No.:	HY-W272217S		
CAS No.:	16416-33-4		
Molecular Formula:	C ₂₈ D ₅₈		
Molecular Weight:	453.12		
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



BIOLOGICAL ACTIVITY

Description	Octacosane-d ₅₈ is the deuterium labeled Octacosane[1]. Octacosane is an endogenous metabolite with antibacterial activity. Octacosane shows high cytotoxicity against murine melanoma B16F10-Nex2 cells besides inducing protection against a grafted subcutaneous melanoma. Octacosane has the larvicidal activity against mosquito Culex quinquefasciatus with the LC50 concentration of 7.2 mg/l[2][3][4].
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 Feb;53(2):211-216.
- [2]. Carlos R Figueiredo, et al. Pyrostegia venusta heptane extract containing saturated aliphatic hydrocarbons induces apoptosis on B16F10-Nex2 melanoma cells and displays antitumor activity in vivo. *Pharmacogn Mag*. 2014 Apr;10(Suppl 2):S363-76.
- [3]. S Rajkumar, et al. Mosquitocidal activities of octacosane from Moschosma polystachyum Linn (lamiaceae). *J Ethnopharmacol*. 2004 Jan;90(1):87-9.
- [4]. Sameh S M Soliman, et al. Effective targeting of breast cancer cells (MCF7) via novel biogenic synthesis of gold nanoparticles using cancer-derived metabolites. *PLoS One*. 2020 Oct 6;15(10):e0240156.

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

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