

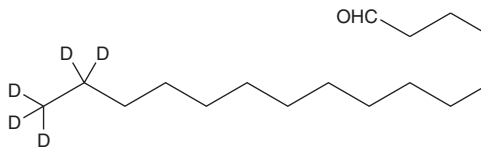
PRODUCT INFORMATION



Hexadecanal-d₅

Item No. 16834

CAS Registry No.: 2703602-66-6
Formal Name: hexadecanal-15,15,16,16,16-d₅
Synonyms: 1-Hexadecanal-d₅, Palmitaldehyde-d₅
MF: C₁₆H₂₇D₅O
FW: 245.5
Chemical Purity: ≥96% (Hexadecanal)
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₅); ≤1% d₀
Supplied as: A solution in methyl acetate
Storage: -20°C
Stability: ≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Hexadecanal-d₅ is intended for use as an internal standard for the quantification of hexadecanal (Item No. 9001996) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

Hexadecanal-d₅ is supplied as a solution in methyl acetate. To change the solvent, simply evaporate the methyl acetate under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as ethanol, DMSO, and dimethyl formamide (DMF) purged with an inert gas can be used. The solubility of hexadecanal-d₅ in ethanol and DMF is approximately 30 mg/ml and approximately 10 mg/ml in DMSO.

Description

Sphingosine-1-phosphate (S1P) is a potent bioactive phospholipid that exhibits a broad spectrum of biological activities including cell proliferation, survival, migration, cytoskeletal organization, and morphogenesis.¹ Hexadecanal is the 16-carbon aldehyde analog of palmitic acid. It is produced from the irreversible cleavage of S1P by S1P lyase 1 and is a major component of plasmalogen.^{2,3}

References

1. Leclercq, T.M. and Pitson, S.M. Cellular signalling by sphingosine kinase and sphingosine 1-phosphate. *IUBMB Life* **58(8)**, 467-472 (2006).
2. Reiss, U., Oskouian, B., Zhou, J., et al. Sphingosine-phosphate lyase enhances stress-induced ceramide generation and apoptosis. *J. Biol. Chem.* **279(2)**, 1281-1290 (2004).
3. Pyne, S. and Pyne, N.J. Sphingosine 1-phosphate signalling in mammalian cells. *Biochem. J.* **349(Pt 2)**, 385-402 (2000).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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