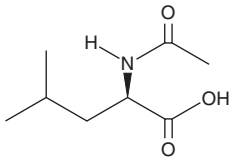
PRODUCT INFORMATION

N-acetyl-D-Leucine

Item No. 30489

CAS Registry No.: 19764-30-8
MF: $C_8H_{15}NO_3$
FW: 173.2
Purity: ≥95%
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

N-acetyl-D-Leucine is supplied as a crystalline solid. A stock solution may be made by dissolving the N-acetyl-D-leucine in the solvent of choice, which should be purged with an inert gas. N-acetyl-D-Leucine is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of N-acetyl-D-leucine in ethanol is approximately 1 mg/ml and approximately 30 mg/ml in DMSO and DMF.

N-acetyl-D-Leucine is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, N-acetyl-D-leucine should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. N-acetyl-D-Leucine has a solubility of approximately 0.2 mg/ml in a 1:4 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

N-acetyl-D-Leucine is a derivative of D-leucine and a substrate for various enzymes in the amidohydrolase superfamily.[1] It has been used to characterize the function of amidohydrolase enzymes from *B. bronchiseptica*, *S. coelicolor*, and *G. oxydans*.

Reference

1. Cummings, J., Fedorov, A.A., Xu, C., *et al.* Annotating enzymes of uncertain function: The deacylation of D-amino acids by members of the amidohydrolase superfamily. *Biochemistry* **48(27)**, 6469-6481 (2009).

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