

Leucinal

Chemical Properties

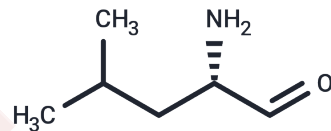
CAS No. : 82473-52-7

Formula: C₆H₁₃NO

Molecular Weight: 115.17

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



Biological Description

Description	Leucinal inhibits the activity of brain aminopeptidase and potentiates analgesia induced by leu-enkephalen.
Targets(IC50)	Others,Aminopeptidase

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	8.6828 mL	43.4141 mL	86.8282 mL
5 mM	1.7366 mL	8.6828 mL	17.3656 mL
10 mM	0.8683 mL	4.3414 mL	8.6828 mL
50 mM	0.1737 mL	0.8683 mL	1.7366 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Davis KR, Hernandez DE, Wolfenden R. Leucinal inhibits brain aminopeptidase activity and potentiates analgesia induced by leu-enkephalen. *Pharmacol Biochem Behav.* 1983 Nov;19(5):791-4. PubMed PMID: 6647514.

Sträter N, Lipscomb WN. Two-metal ion mechanism of bovine lens leucine aminopeptidase: active site solvent structure and binding mode of L-leucinal, a gem-diolate transition state analogue, by X-ray crystallography. *Biochemistry.* 1995 Nov 14;34(45):14792-800. PubMed PMID: 7578088.

Princiotta MF, Schubert U, Chen W, Bennink JR, Myung J, Crews CM, Yewdell JW. Cells adapted to the proteasome inhibitor 4-hydroxy-5-iodo-3-nitrophenylacetyl-Leu-Leu-leucinal-vinyl sulfone require enzymatically active proteasomes for continued survival. *Proc Natl Acad Sci U S A.* 2001 Jan 16;98(2):513-8. Epub 2001 Jan 9. PubMed PMID: 11149939; PubMed Central PMCID: PMC14618.

Ito H, Watanabe M, Kim YT, Takahashi K. Inhibition of rat liver cathepsins B and L by the peptide aldehyde benzyloxycarbonyl-leucyl-leucyl-leucinal and its analogues. *J Enzyme Inhib Med Chem.* 2009 Feb;24(1):279-86. doi: 10.1080/14756360802166921 . PubMed PMID: 18830882.

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