

L-Leucine-p-nitroanilide

Chemical Properties

CAS No.:	4178-93-2
Formula:	C ₁₂ H ₁₇ N ₃ O ₃
Molecular Weight:	251.28
Appearance:	N/A
Storage:	0-4°C for short term (days to weeks), or -20°C for long term (months).

Biological Description

Description	L-Leucine-p-nitroanilide is a substrate. It is used for the colorimetric determination of leucine aminopeptidase.
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Solubility Information

Solubility	DMSO: Soluble (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.980 mL	19.898 mL	39.796 mL
5 mM	0.796 mL	3.980 mL	7.959 mL
10 mM	0.398 mL	1.990 mL	3.980 mL
50 mM	0.080 mL	0.398 mL	0.796 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 °C for 6 months; - 20 °C for 1 month. Please use it as soon as possible.

Reference

1. Lin SH, Van Wart HE. Effect of crysolvents and subzero temperatures on the hydrolysis of L-leucine-p-nitroanilide by porcine kidney leucine aminopeptidase. *Biochemistry*. 1982 Oct 26;21(22):5528-33. PubMed PMID: 7171573.
2. Shimasue A, Sugimoto Y, Tsubokura T. [No blank method using L-leucine-p-nitroanilide as substrate for the assay of serum leucine aminopeptidase (author's transl)]. *Rinsho Byori*. 1977 Feb;25(2):157-60. Japanese. PubMed PMID: 558393.
3. Zhu X, Barman A, Ozbil M, Zhang T, Li S, Prabhakar R. Mechanism of peptide hydrolysis by co-catalytic metal centers containing leucine aminopeptidase enzyme: a DFT approach. *J Biol Inorg Chem*. 2012 Feb;17(2):209-22. doi: 10.1007/s00775-011-0843-2. Epub 2011 Sep 15. PubMed PMID: 21918843.
4. Hernández-Moreno AV, Villaseñor F, Medina-Rivero E, Pérez NO, Flores-Ortiz LF, Saab-Rincón G, Luna-Bárceñas G. Kinetics and conformational stability studies of recombinant leucine aminopeptidase. *Int J Biol Macromol*. 2014 Mar;64:306-12. doi: 10.1016/j.ijbiomac.2013.12.023. Epub 2013 Dec 22. PubMed PMID: 24368112.

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