

## L-Leucine-p-nitroanilide

## Chemical Properties

CAS No. :	4178-93-2
Formula:	C <sub>12</sub> H <sub>17</sub> N <sub>3</sub> O <sub>3</sub>
Molecular Weight:	251.282
Storage:	Powder: -20°C for 3 years   In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>

## Biological Description

Description	L-Leucine-p-nitroanilide is a colorimetric substrate typically used to measure leucine aminopeptidase (LAP) activity. Upon hydrolysis, L-Leucine-p-nitroanilide releases p-nitroaniline to determine activity levels.
Targets(IC50)	Others

## Solubility Information

Solubility	DMSO: 80.00 mg/mL (318.37 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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## Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.9796 mL	19.8981 mL	39.7962 mL
5 mM	0.7959 mL	3.9796 mL	7.9592 mL
10 mM	0.398 mL	1.9898 mL	3.9796 mL
50 mM	0.0796 mL	0.398 mL	0.7959 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

- Lin SH, et al. 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.
- Bozić N, et al. Detection and quantification of leucyl aminopeptidase after native electrophoresis using leucine-p-nitroanilide. *Electrophoresis*. 2005 Jun;26(12):2476-80.
- 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.
- Hernández-Moreno AV, Villaseñor F, Medina-Rivero E, Pérez NO, Flores-Ortiz LF, Saab-Rincón G, Luna-Bárcenas 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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