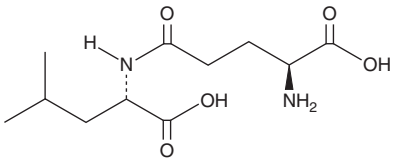
PRODUCT INFORMATION

γ-Glu-Leu

Item No. 33923

CAS Registry No.:	2566-39-4
Formal Name:	L-γ-glutamyl-L-leucine
Synonyms:	γ-Glutamylleucine, γ-L-Glutamyl-L-Leucine
MF:	$C_{11}H_{20}N_2O_5$
FW:	260.3
Purity:	≥95%
Supplied as:	A solid
Storage:	-20°C
Stability:	≥2 years
Item Origin:	Synthetic



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

Laboratory Procedures

γ-Glu-Leu is supplied as a solid. A stock solution may be made by dissolving the γ-Glu-Leu in the solvent of choice, which should be purged with an inert gas. γ-Glu-Leu is soluble in the organic solvent DMSO at a concentration of approximately 1 mg/ml.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of γ-Glu-Leu can be prepared by directly dissolving the solid in aqueous buffers. The solubility of γ-Glu-Leu in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

γ-Glu-Leu is a γ-glutamyl dipeptide that has been found in *P. roquefortii*.[1,2] It is a kokumi compound, enhancing the mouthfulness, complexity, and continuity of taste in a variety of foodstuffs.[2,3] γ-Glu-Leu has been found in several ripened cheeses, including Gouda, Camembert, Shropshire blue, and Comté, as well as sourdough bread fermented with *L. reuteri*.[1-3]

References

1. Roudot-Algaron, F., Kerhoas, L., Le Bars, D., *et al.* Isolation of γ-glutamyl peptides from Comté cheese. *J. Dairy Sci.* **77(5)**, 1161-1166 (1994).
2. Toelstede, S. and Hofmann, T. Kokumi-active glutamyl peptides in cheeses and their biogeneration by *Penicillium roquefortii*. *J. Agric. Food Chem.* **57(9)**, 3738-3748 (2009).
3. Zhao, C.J. and Gänzle, M.G. Synthesis of taste-active γ-glutamyl dipeptides during sourdough fermentation by *Lactobacillus reuteri*. *J. Agric. Food Chem.* **64(40)**, 7561-7568 (2016).

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