

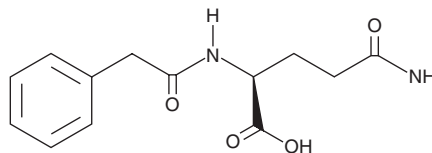
PRODUCT INFORMATION



Phenylacetyl L-Glutamine

Item No. 16724

CAS Registry No.: 28047-15-6
Formal Name: N²-(2-phenylacetyl)-L-glutamine
Synonyms: NSC 203800, PAG, Phenylacetyl L-Gln
MF: C₁₃H₁₆N₂O₄
FW: 264.3
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

Phenylacetyl L-glutamine is supplied as a crystalline solid. A stock solution may be made by dissolving the phenylacetyl L-glutamine in the solvent of choice, which should be purged with an inert gas. Phenylacetyl L-glutamine is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of phenylacetyl L-glutamine in ethanol is approximately 10 mg/ml and approximately 30 mg/ml in DMSO and DMF.

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 phenylacetyl L-glutamine can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of phenylacetyl L-glutamine in PBS (pH 7.2) is approximately 2 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Phenylacetyl L-glutamine is an end product of phenylalanine metabolism in humans and primates.¹ In a large number of other mammals, the corresponding end product is phenylacetylglycine.¹ Phenylacetyl L-glutamine is excreted in urine, with urinary concentrations increasing with age.^{2,3}

References

1. Moldave, K. and Meister, A. Synthesis of phenylacetylglutamine by human tissue. *J. Biol. Chem.* **229**(1), 463-476 (1957).
2. Swann, J.R., Spagou, K., Lewis, M., *et al.* Microbial-mammalian cometabolites dominate the age-associated urinary metabolic phenotype in Taiwanese and American populations. *J. Proteome Res.* **12**(7), 3166-3180 (2013).
3. Collino, S., Montoliu, I., Martin, F.-P.J., *et al.* Metabolic signatures of extreme longevity in northern Italian centenarians reveal a complex remodeling of lipids, amino acids, and gut microbiota metabolism. *PLoS One* **8**(3), 1-12 (2013).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM