

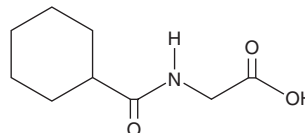
# PRODUCT INFORMATION



## Hexahydrohippuric Acid

Item No. 36386

**CAS Registry No.:** 32377-88-1  
**Formal Name:** N-(cyclohexylcarbonyl)-glycine  
**Synonyms:** Hexahydrohippurate, Cyclohexanoylglycine  
**MF:** C<sub>9</sub>H<sub>15</sub>NO<sub>3</sub>  
**FW:** 185.2  
**Purity:** ≥98%  
**Supplied as:** A 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

Hexahydrohippuric acid is supplied as a solid. A stock solution may be made by dissolving the hexahydrohippuric acid in the solvent of choice, which should be purged with an inert gas. Hexahydrohippuric acid is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of hexahydrohippuric acid in these solvents is approximately 5, 10, and 1 mg/ml, respectively.

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 hexahydrohippuric acid can be prepared by directly dissolving the solid in aqueous buffers. The solubility of hexahydrohippuric acid in PBS (pH 7.2) is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

Hexahydrohippuric acid is a derivative of the amino acid glycine.<sup>1</sup> It has been found in mammalian urine and is formed by gut microbiota from shikimic acid (Item No. 26851) derived from plants in the diet followed by conjugation to glycine.<sup>1</sup> Hexahydrohippuric acid is also a metabolite of cyclohexanecarboxylate, which is also a product of shikimate metabolism.<sup>2</sup>

### References

1. Balba, M.T. and Evans, W.C. The origin of hexahydrohippurate (cyclohexanoylglycine) in the urine of herbivores. *Biochem. Soc. Trans.* **5(1)**, 300-302 (1977).
2. Brewster, D., Jones, R.S., and Parke, D.V. The metabolism of cyclohexanecarboxylate in the rat. *Biochem. J.* **164(3)**, 595-600 (1977).

#### 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.

#### WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 11/09/2022

#### 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