

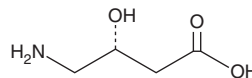
PRODUCT INFORMATION



(R)-4-Amino-3-hydroxybutyric Acid

Item No. 31532

CAS Registry No.: 7013-07-2
Formal Name: (3R)-4-amino-3-hydroxy-butanoic acid
Synonyms: L-γ-Amino-β-hydroxybutyric Acid,
R-(-)-γ-Amino-β-hydroxybutyric Acid,
(R)-GABOB, (-)-β-Hydroxy-GABA,
(R)-(-)-3-Hydroxy-GABA
MF: C₄H₉NO₃
FW: 119.1
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

(R)-4-Amino-3-hydroxybutyric acid is supplied as a crystalline solid. Aqueous solutions of (R)-4-amino-3-hydroxybutyric acid can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of (R)-4-amino-3-hydroxybutyric acid in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

(R)-4-Amino-3-hydroxybutyric acid is a GABA receptor modulator.¹ It binds to GABA_A and GABA_B receptors (IC₅₀s = 1 and 0.35 μM, respectively) and inhibits GABA uptake in rat brain synaptosomes (IC₅₀ = 67 μM). (R)-4-Amino-3-hydroxybutyric acid is also a GABA_C receptor agonist that induces currents in a patch-clamp assay using *Xenopus* oocytes expressing the human receptor (EC₅₀ = 19 μM).² *In vivo*, (R)-4-amino-3-hydroxybutyric acid (20 mg/animal) inhibits electrical discharges in the amygdala in a cat model of N-amidinobenzamide-induced seizures.³

References

1. Falch, E., Hedegaard, A., Nielsen, L., *et al.* Comparative stereostructure-activity studies on GABA_A and GABA_B receptor sites and GABA uptake using rat brain membrane preparations. *J. Neurochem.* **47**(3), 898-903 (1986).
2. Hinton, T., Chebib, M., and Johnston, G.A.R. Enantioselective actions of 4-amino-3-hydroxybutanoic acid and (3-amino-2-hydroxypropyl)methylphosphinic acid at recombinant GABA_C receptors. *Bioorg. Med. Chem. Lett.* **18**(1), 402-404 (2008).
3. Katayama, Y. and Mori, A. Inhibitory action of (3R)-(-)-4-amino-3-hydroxybutanoic acid on N-amidinobenzamide induced seizure activity in cat brain. *IRCS Med. Sci.* **5**(9), 437 (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, 11/03/2022

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