

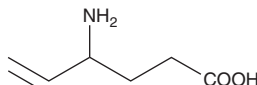
PRODUCT INFORMATION



Vigabatrin

Item No. 9000976

CAS Registry No.: 68506-86-5
Formal Name: 4-amino-5-hexenoic acid
Synonym: γ -Vinyl GABA
MF: C₆H₁₁NO₂
FW: 129.2
Purity: \geq 95%
Supplied as: A crystalline solid
Storage: -20°C
Stability: \geq 4 years



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

Laboratory Procedures

Vigabatrin is supplied as a crystalline solid. Aqueous solutions of vigabatrin can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of vigabatrin in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Vigabatrin is an irreversible GABA transaminase (GABA-T) inhibitor.¹ It inhibits rat brain GABA-T when used at a concentration of 0.1 mM. Vigabatrin is selective for rat brain GABA-T over *P. fluorescens* GABA-T at 10 mM and is 100-fold selective over rat brain glutamic acid decarboxylase (GAD). Vigabatrin (1,500 mg/kg) decreases brain GABA-T activity without affecting GAD activity in mice.² It reduces the incidence of myoclonus in a mouse model of audiogenic seizures.³ Vigabatrin also increases the electroconvulsive threshold in mouse model of maximal electroshock-induced seizures and reduces the number of clonic convulsions induced by pentylenetetrazol (PTZ; Item No. 18682) in mice.⁴ Formulations containing vigabatrin have been used in the treatment of seizures and infantile spasms.

References

1. Jung, M.J., Lippert, B., Metcalf, B.W., *et al.* 4-Amino-hex-5-enoic acid, a selective catalytic inhibitor of 4-aminobutyric-acid aminotransferase in mammalian brain. *Eur. J. Biochem.* **74(3)**, 441-445 (1977).
2. Lippert, B., Metcalf, B.W., Jung, M.J., *et al.* γ -Vinyl GABA (4-amino-hex-5-enoic acid), A new selective irreversible inhibitor of GABA-T: Effects on brain GABA metabolism in mice. *J. Neurochem.* **29(5)**, 797-802 (1977).
3. Meldrum, B.S. and Murugaiah, K. Anticonvulsant action in mice with sound-induced seizures of the optical isomers of γ -vinyl GABA. *Eur. J. Pharm.* **89(1-2)**, 149-152 (1983).
4. Luszczki, J.J. and Czuczwar, S.J. Isobolographic characterization of interactions between vigabatrin and tiagabine in two experimental models of epilepsy. *Prog. Neuropsychopharmacol. Biol. Psychiatry* **31(2)**, 529-538 (2007).

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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