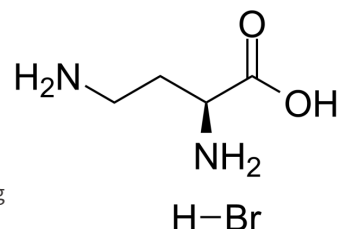


L-DABA hydrobromide

Cat. No.:	HY-101414A
CAS No.:	73143-97-2
Molecular Formula:	C ₄ H ₁₁ BrN ₂ O ₂
Molecular Weight:	199.05
Target:	Endogenous Metabolite; GABA Receptor
Pathway:	Metabolic Enzyme/Protease; Membrane Transporter/Ion Channel; Neuronal Signaling
Storage:	4°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



BIOLOGICAL ACTIVITY

Description	L-DABA (L-2,4-Diaminobutyric acid) hydrobromide is a weak GABA transaminase inhibitor with an IC ₅₀ of larger than 500 μM; exhibits antitumor activity in vivo and in vitro.
IC ₅₀ & Target	IC ₅₀ : larger than 500 μM (GABA transaminase) ^[1]
In Vitro	<p>The tumor cells are irreversibly and totally damaged by incubation with 10 mM L-2,4-Diaminobutyric acid for 24 h at 37°C. The cell-destructive effect by L-DABA hydrobromide is probably due to an osmotic lysis induced by the non-saturated intracellular accumulation of L-DABA hydrobromide. The harmful effect of L-DABA hydrobromide could be abolished by concomitant incubation with L-alanine and L-methionine^[1]. Kinetic studies indicates that L-DABA hydrobromide is a non-linear, non-competitive inhibitor of GABA transaminase activity. The L-DABA hydrobromide-induced elevation of GABA levels parallels the inhibition of GABA transaminase activity^[2]. L-2,4-Diaminobutyric acid, an amino acid analogue, produces a cytolytic effect with a human glioma cell line, SKMG-1, and normal human fibroblasts. The concentrations of L-DABA hydrobromide necessary to reduce the cell count to 50% of control following a 24-h incubation at 37°C are 12.5 mM for the human fibroblasts and 20 mM for the glioma cell line^[3].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>
In Vivo	<p>Treatment with L-DABA hydrobromide results in 43.4% reduction of tumor growth^[1]. L-DABA hydrobromide is a more effective inhibitor of GABA transaminase in vivo than in vitro^[2].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>

REFERENCES

- [1]. Ronquist G, et al. Antitumor activity of L-2,4 diaminobutyric acid against mouse fibrosarcoma cells in vitro and in vivo. J Cancer Res Clin Oncol. 1980;96(3):259-68.
- [2]. Beart PM, et al. L-2,4-Diaminobutyric acid and the GABA system. Neurosci Lett. 1977 Jul;5(3-4):193-8.
- [3]. Panasci L, et al. The cytolytic effect of L-2,4 diaminobutyric acid with malignant glioma cells and fibroblasts. Cancer Chemother Pharmacol. 1988;21(2):143-4.

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA