上海源叶生物科技有限公司
Shanghai yuanye Bio-Technology Co., Ltd
电话：021-61312973　　传真：021-55068248
网址：www.shyuanye.com
邮箱：shyysw@sina.com

产品名称：L-2,4-二氨基丁酸氢溴酸盐
产品别名：L-DABA；L-2,4-Diaminobutyric acid

生物活性：

Description	L-DABA (L-2,4-Diaminobutyric acid) is a week GABA transaminase inhibitor with an IC_{50} of larger than 500 μM; exhibits antitumor activity *in vivo* and *in vitro*.
IC_{50} & Target	Human Endogenous Metabolite
In Vitro	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 is probably due to an osmotic lysis induced by the non-saturated intracellular accumulation of L-DABA. The harmful effect of L-DABA could be abolished by concomitant incubation with L-alanine and L-methionine[1]. Kinetic studies indicates that L-DABA is a non-linear, non-competitive inhibitor of GABA transaminase activity. The L-DABA-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 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].
In Vivo	Treatment with L-DABA results in 43.4% reduction of tumor growth[1]. L-DABA is a more effective inhibitor of GABA transaminase in vivo than in vitro[2].
Solvent&Solubility	***In Vitro:*** **H_2O : ≥ 34 mg/mL (287.82 mM)** * "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	8.4653 mL	42.3263 mL	84.6525 mL
	5 mM	1.6931 mL	8.4653 mL	16.9305 mL
	10 mM	0.8465 mL	4.2326 mL	8.4653 mL

*请根据产品在不同溶剂中的溶解度选择合适的溶剂配制储备液；一旦配成溶液，请分装保存，避免反复冻融造成的产品失效。

储备液的保存方式和期限：-80°C, 6 months; -20°C, 1 month。-80°C 储存时，请在 6 个月内使用，-20°C 储存时，请在 1 个月内使用。

References	[1]. Ronquist G, et al. Antitumor activity of L-2,4 diaminobuturic 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.

实验参考：

Animal Administration	Mice: Male Sprague Dawley rats (150-200g) are used in the study. LDABA is dissolved in 09.% saline and diluted in appropriate medium. L-DABA is administered intraperitoneally at a dose of 764 mg/kg in a volume of 4 mL/kg in acute studies. Chronically treated rats receives daily

	intraperitoneally injections (2.5mM/kg in saline) for 3 days. Mice are sacrificed and the brain regions are dissected for analysis[2].
References	[1]. Ronquist G, et al. Antitumor activity of L-2,4 diaminobuturic 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.