



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: shyyssw@sina.com

产品名称: **Fenobam**
CAS 号: **57653-26-6**
产品货号: **S89368**

生物活性:					
Description	Fenobam 是一种具有选择性和口服活性的 mGluR5 拮抗剂 (IC50=84 nM), 能穿过血脑屏障。Fenobam 在大鼠和人重组 mGlu5 受体上的 Kd 值分别 54 nM 和 31 nM。Fenobam 具有抗焦虑活性, 能抑制大鼠的自我给药行为, 还可诱导癌细胞凋亡 (apoptosis)。Fenobam 可用于神经系统疾病、癌症以及药物成瘾的研究。				
IC50 & Target[1]	mGluR5 84 nM (IC50)	rat mGluR5 54 nM (Kd)	human mGluR5 31 nM (Kd)		
Cellular Effect	Cell Line	Type	Value	Description	
	CHO-K1	IC50	43 nM	Antagonist activity at human mGluR5 expressed in CHO-K1 cells assessed as inhibition of glutamate-induced intracellular calcium mobilization	
	HEK293	IC50	51 nM	Displacement of [3H]-MPEP from human mGlu5 receptor expressed in HEK293 cell membranes after 1 hr by scintillation counting analysis	
	HEK293	IC50	51 nM	Displacement of [3H]-MPEP from rat mGlu5 receptor expressed in HEK293 cell membranes after 1 hr by scintillation counting analysis	
In Vitro	Fenobam (300 μM; 72 h) 显著抑制 LM7 细胞的增殖, 并诱导细胞凋亡[2]。 Apoptosis Analysis[2]				
	Cell Line:		LM7 cells		
	Concentration:		300 μM		
	Incubation Time:		72 h		
	Result:		Significantly reduced total number of cells, proliferating cells, and induced apoptosis.		
In Vivo	Fenobam (30-60 mg/kg; p.o.; 3 times a week) 显著抑制大鼠的自我给药行为[3]。				
	Animal Model:		Male Long-Evans rats (250-300 g)[3].		
	Dosage:		30-60 mg/kg		
	Administration:		Oral administration; 3 times a week.		
	Result:		Inhibited self-administration.		
Solvent&Solubility	细胞实验:				
	DMSO 中的溶解度 : 100 mg/mL (374.98 mM; 超声助溶; 吸湿的 DMSO 对产品的溶解度有显著影响, 请使用新开封的 DMSO)				
	Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
		1 mM	3.7498 mL	18.7491 mL	37.4981 mL
		5 mM	0.7500 mL	3.7498 mL	7.4996 mL
		10 mM	0.3750 mL	1.8749 mL	3.7498 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。
参考文献	[1]. Porter RH, et al. Fenobam: a clinically validated nonbenzodiazepine anxiolytic is a potent, selective, and noncompetitive mGlu5 receptor antagonist with inverse agonist activity. J Pharmacol Exp Ther. 2005 Nov;315(2):711-21. [2]. Liao S, et al. Osteosarcoma cell proliferation and survival requires mGluR5 receptor activity and is blocked by Riluzole. PLoS One. 2017 Feb 23;12(2):e0171256. [3]. Keck TM, et al. Fenobam sulfate inhibits cocaine-taking and cocaine-seeking behavior in rats: implications for addiction treatment in humans. Psychopharmacology (Berl). 2013;229(2):253-265.

完整储备液配制表:

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。

可选溶剂	质量 溶剂体积 浓度	1 mg	5 mg	10 mg	25 mg
DMSO	1 mM	3.7498 mL	18.7491 mL	37.4981 mL	93.7453 mL
	5 mM	0.7500 mL	3.7498 mL	7.4996 mL	18.7491 mL
	10 mM	0.3750 mL	1.8749 mL	3.7498 mL	9.3745 mL
	15 mM	0.2500 mL	1.2499 mL	2.4999 mL	6.2497 mL
	20 mM	0.1875 mL	0.9375 mL	1.8749 mL	4.6873 mL
	25 mM	0.1500 mL	0.7500 mL	1.4999 mL	3.7498 mL
	30 mM	0.1250 mL	0.6250 mL	1.2499 mL	3.1248 mL
	40 mM	0.0937 mL	0.4687 mL	0.9375 mL	2.3436 mL
	50 mM	0.0750 mL	0.3750 mL	0.7500 mL	1.8749 mL
	60 mM	0.0625 mL	0.3125 mL	0.6250 mL	1.5624 mL
	80 mM	0.0469 mL	0.2344 mL	0.4687 mL	1.1718 mL
	100 mM	0.0375 mL	0.1875 mL	0.3750 mL	0.9375 mL