



上海源叶生物科技有限公司
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产品名称: **GUANABENZ**

CAS 号: **5051-62-7**

产品货号: **S88119**

生物活性:

Description	Guanabenz 是一种 α -2 肾上腺素受体激动剂, 具有口服活性。Guanabenz 具有抗高血压和抗寄生虫活性。Guanabenz 干扰内质网应激信号传导, 对心肌细胞具有保护作用。Guanabenz 也被用于高血压的研究。	
IC50 & Target	Toxoplasma	
In Vitro	Guanabenz (0.5-50 μ M, 24 h) is treated with increasing concentrations for 24 hours not affect cell viability[1].	
	Guanabenz (0.5-50 μ M, 24 h) alone not affects the UPR targets, neither on mRNA or protein level nor the phosphorylation status of eIF2 α . Guanabenz also not induces GADD34 or the constitutively active form CReP[1].	
	Guanabenz (0.5-50 μ M, 24 h) alone not induces ER stress in neonatal rat cardiomyocytes[1].	
	Cell Viability Assay[1]	
	Cell Line:	Neonatal rat cardiac myocytes (NRCM)
	Concentration:	0.5–50 μ M
	Incubation Time:	24 h
	Result:	Did not affect cell survival.
	RT-PCR[1]	
	Cell Line:	Neonatal rat cardiac myocytes (NRCM)
	Concentration:	0.5–50 μ M
	Incubation Time:	24 h
	Result:	Did not affect levels of UPR targets.
	Western Blot Analysis[1]	
	Cell Line:	Neonatal rat cardiac myocytes (NRCM)
	Concentration:	0.5–50 μ M
	Incubation Time:	24 h
	Result:	Increased the levels of low panel concentration-dependent UPR targets proteins.
In Vivo	Guanabenz (5 mg/kg/day; i.p.; for 3 weeks) can reproducibly reduce brain cyst burden[2].	
	Guanabenz (5 mg /kg/d, i.p., oral; 10 mg/kg/d, gavage; for 3 weeks) reverses Toxoplasma-induced hyperactivity in latently infected mice[2].	
	Guanabenz (100 and 320 μ g/kg and 1 mg/kg, i.v., over a period of 5 min at intervals of 40 min) reduces sympathetic outflow, heart rate and blood pressure in debuffed cats[3].	
	Animal Model:	BALB/cJ mice[2]
	Dosage:	5 mg/kg
	Administration:	5 mg/kg/day; i.p. ; for 3 weeks
	Result:	Reduced the latent brain cysts in both male and female BALB/cJ mice.
	Animal Model:	BALB/cJ mice[2]
	Dosage:	5 mg/kg; 10 mg/kg
	Administration:	5 mg /kg/d, i.p., oral; 10 mg/kg/d, gavage; for 3 weeks



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	Result:	Reversed parasite-induced hyperactivity to near-baseline levels.			
	Animal Model:	Cats[3]			
	Dosage:	100 and 320 µg/kg and 1 mg/kg			
	Administration:	100 and 320 µg/kg and 1 mg/kg, i.v., over a period of 5 min at intervals of 40 min			
	Result:	Declined markedly blood pressure and nerve activity.			
Solvent&Solubility	细胞实验:				
	DMSO 中的溶解度 : 16.67 mg/mL (72.14 mM; 超声助溶 (<60° C); 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	4.3275 mL	21.6375 mL	43.2751 mL
		5 mM	0.8655 mL	4.3275 mL	8.6550 mL
10 mM		0.4328 mL	2.1638 mL	4.3275 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]. Christiane Neuber, et al. Guanabenz interferes with ER stress and exerts protective effects in cardiac myocytes. PLoS One. 2014 Jun 3;9(6):e98893. [2]. Jennifer Martynowicz, et al. Guanabenz Reverses a Key Behavioral Change Caused by Latent Toxoplasmosis in Mice by Reducing Neuroinflammation. mBio. 2019 Apr 30;10(2):e00381-19. [3]. T Baum, et al. Studies on the centrally mediated hypotensive activity of guanabenz. Eur J Pharmacol. 1976 May;37(1):31-44.				
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	4.3275 mL	21.6375 mL	43.2751 mL	108.1876 mL
	5 mM	0.8655 mL	4.3275 mL	8.6550 mL	21.6375 mL
	10 mM	0.4328 mL	2.1638 mL	4.3275 mL	10.8188 mL
	15 mM	0.2885 mL	1.4425 mL	2.8850 mL	7.2125 mL
	20 mM	0.2164 mL	1.0819 mL	2.1638 mL	5.4094 mL
	25 mM	0.1731 mL	0.8655 mL	1.7310 mL	4.3275 mL



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	30 mM	0.1443 mL	0.7213 mL	1.4425 mL	3.6063 mL
	40 mM	0.1082 mL	0.5409 mL	1.0819 mL	2.7047 mL
	50 mM	0.0866 mL	0.4328 mL	0.8655 mL	2.1638 mL
	60 mM	0.0721 mL	0.3606 mL	0.7213 mL	1.8031 mL



源叶