



上海源叶生物科技有限公司
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产品名称: **Fosphenytoin Sodium Hydrate**
产品别名: 磷苯妥英钠 ; **Fosphenytoin disodium**

生物活性:						
Description		Fosphenytoin sodium is a phenytoin prodrug with similar anticonvulsant properties.				
In Vivo		Fosphenytoin is an effective neuroprotectant against ischemia-induced damage. In fosphenytoin (30 mg/kg, i.m.)-treated rat 5 min after ischemia episode, hippocampal CA1 pyramidal neurons remain at near control level (13.90 +/- 0.92), however, GFAP staining iss not significantly changed[1]. In fosphenytoin (84 mg/kg)-treated rat, the relative bioavailability of fosphenytoin is 83%. In fully kindled female Wistar rats, fosphenytoin dose-dependently increases the focal seizure (afterdischarge) threshold. Seizure severity and duration at threshold are reduced only after the highest does of fosphenytoin tested (84 mg/kg)[2].				
Solvent&Solubility		In Vitro: H ₂ O : ≥ 100 mg/mL (246.16 mM) * "≥" means soluble, but saturation unknown.				
		Preparing Stock Solutions	Solvent Concentration Mass	1 mg	5 mg	10 mg
			1 mM	2.4616 mL	12.3080 mL	24.6160 mL
			5 mM	0.4923 mL	2.4616 mL	4.9232 mL
			10 mM	0.2462 mL	1.2308 mL	2.4616 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℃, 6 months; -20℃, 1 month。 -80℃ 储存时，请在 6 个月内使用，-20℃ 储存时，请在 1 个月内使用。						
References		[1]. Chan SA, et al. Fosphenytoin reduces hippocampal neuronal damage in rat following transient global ischemia. Acta Neurochir (Wien). 1998;140(2):175-80. [2]. Loscher W, et al. Anticonvulsant effect of fosphenytoin in amygdala-kindled rats: comparison with phenytoin. Epilepsy Res. 1998 Mar;30(1):69-76.				
实验参考:						
Animal Administration		A total of four groups of rats, including normal (n=2), sham operated (n=2), ischemia with saline-treated (n=2), and ischemia with fosphenytoin-treated (n=2), are studied. Postischemic rats in saline-treated and fosphenytoin-treated groups receive a single i.m. injection of saline or fosphenytoin (30 mg/kg), respectively, in the right hind limb 5 minutes after resuscitation. Sham-operated animals are treated similarly except for chest compression. All rats are killed on the 7th postischemic day by decapitation. Brains are immediately removed, bisected longitudinally, and immersed in 4% buffered neutral formaldehyde containing 0.25% glutaraldehyde for a minimum of 2 days at 4°C. Portions of the brain containing the dorsal hippocampus are coronally sectioned with a vibratome at 40 μm. With the aid of a dissecting microscope, rectangular blocks of about 1 mm ² in size encompassing the mid-CA1 region from sections that approximate Bregma -3.6 are dissected, postfixed in 2% osmium tetroxide, and dehydrated in ascending concentrations of ethanol before being embedded in Araldite 502. Sections of polymerized blocks 1 μm thick are cut and toluidine				



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	blue stained for light microscopic examination. [1]
References	[1]. Chan SA, et al. Fosphenytoin reduces hippocampal neuronal damage in rat following transient global ischemia. Acta Neurochir (Wien). 1998;140(2):175-80. [2]. Loscher W, et al. Anticonvulsant effect of fosphenytoin in amygdala-kindled rats: comparison with phenytoin. Epilepsy Res. 1998 Mar;30(1):69-76.



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