



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: 5-(N-乙基-N-异丙基)阿米洛利
产品别名: EIPA; L593754; MH 12-43

生物活性:				
Description	EIPA (L593754; MH 12-43) is a TRPP3 channel inhibitor with an IC ₅₀ of 10.5 μM. EIPA (L593754; MH 12-43) also inhibits Na ⁺ /H ⁺ -exchanger (NHE) and macropinocytosis.			
IC ₅₀ & Target	IC ₅₀ : 10.5 μM (TRPP3 channel)[1] NHE[2] Macropinocytosis[3]			
In Vitro	In the presence of 100 μM EIPA, 10 μM benzamil, and 10 μM phenamil, ⁴⁵ Ca ²⁺ uptake decreases from 79±9 to 46±4 (58% remaining), 27±4 (34%), 29±5 (37%), and 38±4 (48%) pmol/oocyte/30 min (n=6, P=0.008), respectively. It is found that EIPA, benzamil, and phenamil rapidly and reversibly block Ca ²⁺ -activated TRPP3 channel activation at -50 mV, with IC ₅₀ s of 143±8 (n=36), 10.5±2.2 (n=28), 1.1±0.3 (n=30), and 0.14±0.04 μM (n=25), respectively ^[1] . The number of autophagic vacuoles increases dramatically in the HAE and HPE groups after EIPA treatment compare with the HAN and HPN groups. EIPA regulates the initiation and maturation of the autophagy associated with amino acids in IEC-18 cells ^[2] . In addition, the uptake of cinnamoylphenazine (CA-PZ) and neutral red (NR) is inhibited by EIPA ^[3] .			
Solvent&Solubility	In Vitro: DMSO : 140 mg/mL (467.04 mM; Need ultrasonic)			
	Preparing Stock Solutions	Solvent Concentration	Mass	
			1 mg	5 mg
			10 mg	
		1 mM	3.3360 mL	16.6800 mL
		5 mM	0.6672 mL	3.3360 mL
		10 mM	0.3336 mL	1.6680 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。 In Vivo: 请根据您的实验动物和给药方式选择适当的溶解方案。以下溶解方案都请先按照 In Vitro 方式配制澄清的储备液, 再依次添加助溶剂: ——为保证实验结果的可靠性, 澄清的储备液可以根据储存条件, 适当保存; 体内实验的工作液, 建议您现用现配, 当天使用; 以下溶剂前显示的百分比是指该溶剂在您配制终溶液中的体积占比; 如在配制过程中出现沉淀、析出现象, 可以通过加热和/或超声的方式助溶 1.请依序添加每种溶剂: 10% DMSO→40% PEG300 →5% Tween-80 → 45% saline Solubility: ≥ 2.33 mg/mL (7.77 mM); Clear solution 此方案可获得 ≥ 2.33 mg/mL (7.77 mM, 饱和度未知) 的澄清溶液。 以 1 mL 工作液为例, 取 100 μL 23.3 mg/mL 的澄清 DMSO 储备液加到 400 μL PEG300 中, 混合均匀, 向上述体系中加入 50 μL Tween-80, 混合均匀; 然后继续加入 450 μL 生理盐水定容至 1 mL。 2.请依序添加每种溶剂: 10% DMSO→ 90% (20% SBE-β-CD in saline)			



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

	<p>Solubility: ≥ 2.33 mg/mL (7.77 mM); Clear solution</p> <p>此方案可获得 ≥ 2.33 mg/mL (7.77 mM, 饱和度未知) 的澄清溶液。</p> <p>以 1 mL 工作液为例, 取 100 μL 23.3 mg/mL 的澄清 DMSO 储备液加到 900 μL 20% 的 SBE-β-CD 生理盐水水溶液中, 混合均匀。</p>
References	<p>[1]. Dai XQ, et al. Inhibition of TRPP3 channel by MK-870 and analogs. Mol Pharmacol. 2007 Dec;72(6):1576-85.</p> <p>[2]. Shi H, et al. Na⁺/H⁺ Exchanger Regulates Amino Acid-Mediated Autophagy in Intestinal Epithelial Cells. Cell Physiol Biochem. 2017;42(6):2418-2429.</p> <p>[3]. Zhu BY, et al. A new HDAC inhibitor cinnamoylphenazine shows antitumor activity in association with intensive macropinocytosis.</p>
实验参考:	
Cell Assay	<p>The effect of EIPA alone (without alanine or proline) is also examined in both control (DMEM cultured cells) and amino acid-starved cells. The cells are incubated for 6 h in DMEM containing 5% FBS and either 0 or 0.3 mM EIPA (labelled QNN and QNE, respectively), HBSS containing either 0 or 0.3 mM EIPA (labelled HNN and HNE, respectively), HBSS with 1.0 mM alanine (labelled HAN) or 0.5 mM proline (labelled HPN), HBSS with 1.0 mM alanine and 0.3 mM EIPA (labelled HAE), and HBSS with 0.5 mM proline and 0.3 mM EIPA (labelled HPE)[2].</p>
References	<p>[1]. Dai XQ, et al. Inhibition of TRPP3 channel by MK-870 and analogs. Mol Pharmacol. 2007 Dec;72(6):1576-85.</p> <p>[2]. Shi H, et al. Na⁺/H⁺ Exchanger Regulates Amino Acid-Mediated Autophagy in Intestinal Epithelial Cells. Cell Physiol Biochem. 2017;42(6):2418-2429.</p> <p>[3]. Zhu BY, et al. A new HDAC inhibitor cinnamoylphenazine shows antitumor activity in association with intensive macropinocytosis.</p>

源叶生物