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产品名称: Bay-K-8644 ((R)-(+)-)

产品别名: (R)-(+)-Bay-K-8644; R-4407; NI-105; (+)-BAY-K-8644

生物活性:				
Description	Bay-K-8644 (R)-(+)- is a calcium channel inhibitor. Bay-K-8644 (R)-(+)- inhibits Ba ²⁺ currents (I _{Ba}) (IC ₅₀ =975 nM).			
IC ₅₀ & Target	IC ₅₀ : 975 nM (I _{Ba})[1]			
In Vitro	(±)-Bay K 8644, a conventional racemic mixture of Bay K 8644, is widely used as an L-type Ca ²⁺ channel agonist. Each optical isomer possesses opposite effects on I _{Ba} , Bay-K-8644 (R)-(+)- as an antagonist and S(-)-Bay K 8644 as an agonist. Bay-K-8644 (R)-(+)- inhibits Ba ²⁺ currents (I _{Ba}) (IC ₅₀ =975 nM). When Bay-K-8644 (R)-(+)- (0.5 μM) is applied, I _{Ba} is suppressed to 71±10% of control. In the presence of Bay-K-8644 (R)-(+)- (0.5 μM), additional application of forskolin and sodium nitroprusside (SNP) further inhibits I _{Ba} [1]. Bay-K-8644 (R)-(+)- is a calcium channel inhibitor[2].			
Solvent&Solubility	In Vitro: DMSO : ≥ 300 mg/mL (841.99 mM) H ₂ O : < 0.1 mg/mL (insoluble) * "≥" means soluble, but saturation unknown.			
	Preparing Stock Solutions	Solvent Concentration	Mass	
			1 mg	5 mg
			10 mg	
		1 mM	2.8066 mL	14.0331 mL
		5 mM	0.5613 mL	2.8066 mL
		10 mM	0.2807 mL	1.4033 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: ≥ 2.5 mg/mL (7.02 mM); Clear solution 此方案可获得 ≥ 2.5 mg/mL (7.02 mM, 饱和度未知) 的澄清溶液。 以 1 mL 工作液为例, 取 100 μL 25.0 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) Solubility: 2.5 mg/mL (7.02 mM); Suspended solution; Need ultrasonic 此方案可获得 2.5 mg/mL (7.02 mM) 的均匀悬浊液, 悬浊液可用于口服和腹腔注射。			



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	以 1 mL 工作液为例, 取 100 μ L 25.0 mg/mL 的澄清 DMSO 储备液加到 900 μ L 20% 的 SBE- β -CD 生理盐水溶液中, 混合均匀。
References	<p>[1]. Zhu HL, et al. Antagonistic actions of S(-)-Bay K 8644 on cyclic nucleotide-induced inhibition of voltage-dependent Ba(2+) currents in guinea pig gastric antrum. Naunyn Schmiedebergs Arch Pharmacol. 2008 Dec;378(6):609-15.</p> <p>[2]. Sidaway P, et al. L-type Ca2+ channel sparklets revealed by TIRF microscopy in mouse urinary bladder smooth muscle. PLoS One. 2014 Apr 3;9(4):e93803.</p>



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