



上海源叶生物科技有限公司
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产品名称: **ARA290**
产品别名: **Cibinetide**

生物活性:						
Description		ARA290 is an EPO-derivative, acting as a specific agonist of erythropoietin/CD131 heteroreceptor, and used for neurological disease treatment.				
In Vitro		ARA290 enhances the proliferation, migration, and resistance to H ₂ O ₂ -induced apoptosis of endothelial colony-forming cells (ECFCs)[1]. ARA290 is an EPO-analog peptide without hematopoietic side-effects but may have neurotrophic and antidepressant effects[2].				
In Vivo		After ECFC transplantation to mice with CLI, a single ARA290 injection enhances the ischemic/non-ischemic ratio of hindlimb blood flow and capillary density after 28 days and the homing of radiolabeled transplanted cells to the ischemic leg 4h after transplantation[1]. ARA290 (30 μg/kg, s.c.) prevents progressive worsening of glucose control without affecting body weight of rats. ARA290 significantly decreases glucose AUCs in IPGTT in GK rats[2]. Low-dosage ARA290 (35 μg/kg, i.p.) treatment only slightly attenuates the EAE severity in rats. ARA290-treating group (70 μg/kg, i.p.) significantly delays the onset, decreases the neurologic severity and shortens the duration of EAE in a dose-dependent way[3].				
Solvent&Solubility		In Vitro: DMSO : ≥ 34 mg/mL (27.04 mM) * "≥" means soluble, but saturation unknown.				
		Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
			1 mM	0.7953 mL	3.9767 mL	7.9535 mL
			5 mM	0.1591 mL	0.7953 mL	1.5907 mL
			10 mM	0.0795 mL	0.3977 mL	0.7953 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]. Hache G, et al. ARA290, a Specific Agonist of Erythropoietin/CD131 Heteroreceptor, Improves Circulating Endothelial Progenitors' Angiogenic Potential and Homing Ability. Shock. 2016 Oct;46(4):390-7 [2]. Carole Muller, et al. ARA290 Improves Insulin Release and Glucose Tolerance in Type 2 Diabetic Goto-Kakizaki Rats. Mol Med. 2015; 21(1): 969–978 [3]. Chen H, et al. Therapeutic effects of nonerythropoietic erythropoietin analog ARA290 in experimental autoimmune encephalomyelitis rat. J Neuroimmunol. 2014 Mar 15;268(1-2):64-70				
实验参考:						
Animal Administration		Diabetic Goto-Kakizaki (GK) rats, originating from Wistar rats, are bred in our department. Normal Wistar (W) rats are used as nondiabetic controls. All animals are about six weeks old and with body weights 100 to 150 g when treatment is initiated. They are kept at 22℃ on a reversed 12-h light-dark cycle with free access to food, except when fasted overnight as noted below. Rats are treated over 4				



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	wks with ARA290 by a once daily subcutaneous (s.c.) injection at a dose of 30 µg/kg body weight or PBS. Blood samples for determination of glucose are taken after a small tail incision and analyzed every week before morning s.c. injection of either ARA290 or placebo. During the experimental period, body weights are measured weekly. [2]
References	[1]. Hache G, et al. ARA290, a Specific Agonist of Erythropoietin/CD131 Heteroreceptor, Improves Circulating Endothelial Progenitors' Angiogenic Potential and Homing Ability. Shock. 2016 Oct;46(4):390-7 [2]. Carole Muller, et al. ARA290 Improves Insulin Release and Glucose Tolerance in Type 2 Diabetic Goto-Kakizaki Rats. Mol Med. 2015; 21(1): 969–978 [3]. Chen H, et al. Therapeutic effects of nonerythropoietic erythropoietin analog ARA290 in experimental autoimmune encephalomyelitis rat. J Neuroimmunol. 2014 Mar 15;268(1-2):64-70

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