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产品名称：2-(3-Phenyl-4,5-dihydroisoxazol-5-yl)acetic Acid
产品别名：VGX-1027；GIT 27

生物活性：

Description

VGX-1027(GIT27) is an isoxazole compound that exhibits various immunomodulatory properties; reduce the secretion of IL-1beta, TNF-alpha and IL-10 from purified murine macrophages. IC50 value: Target: immunomodulator Administration of VGX-1027 to NOD mice with spontaneous or accelerated forms of diabetes induced either by injection of cyclophosphamide or by transfer of spleen cells from acutely diabetic syngeneic donors markedly reduced the cumulative incidence of diabetes and insulitis. In addition, VGX-1027 given either i.p. or p.o. to CBA/H mice made diabetic with multiple low doses of streptozotocin successfully counteracted the development of destructive insulitis and hyperglycemia [1]. VGX-1027 appeared to spare T cell function as it was unable to modify the proliferation and/or secretion of IL-2, IFN-gamma and IL-4 induced in purified murine CD4+ T cells from stimulation with either CD3+CD28 or ConA [2]. VGX-1027 inhibited both proliferation of enterobacterial antigen-reactive CD4+CD25- T cells in vitro and the development of clinical and histological signs of colitis in vivo [3].

Solvent&Solubility

In Vitro:

DMSO : ≥ 56 mg/mL (272.89 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	4.8731 mL	24.3653 mL	48.7306 mL
5 mM	0.9746 mL	4.8731 mL	9.7461 mL
10 mM	0.4873 mL	2.4365 mL	4.8731 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 (12.18 mM); Clear solution

此方案可获得 ≥ 2.5 mg/mL (12.18 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 (12.18 mM); Clear solution

	此方案可获得 ≥ 2.5 mg/mL (12.18 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 900 μL 20% 的 SBE-β-CD 生理盐水水溶液中，混合均匀。 3.请依序添加每种溶剂： 10% DMSO →90% corn oil Solubility: ≥ 2.5 mg/mL (12.18 mM); Clear solution 此方案可获得 ≥ 2.5 mg/mL (12.18 mM，饱和度未知) 的澄清溶液，此方案不适用于实验周期在半个月以上的实验。 以 1 mL 工作液为例，取 100 μL 25.0 mg/mL 的澄清 DMSO 储备液加到 900 μL 玉米油中，混合均匀。
References	[1]. Stosic-Grujicic S, et al. A potent immunomodulatory compound, (S,R)-3-Phenyl-4,5-dihydro-5-isoxazole acetic acid, prevents spontaneous and accelerated forms of autoimmune diabetes in NOD mice and inhibits the immunoinflammatory diabetes induced by multipl [2]. Stojanovic I, et al. In vitro, ex vivo and in vivo immunopharmacological activities of the isoxazoline compound VGX-1027: modulation of cytokine synthesis and prevention of both organ-specific and systemic autoimmune diseases in murine models. Clin Immuno [3]. Mangano K, et al. In vitro inhibition of enterobacteria-reactive CD4+CD25- T cells and suppression of immunoinflammatory colitis in mice by the novel immunomodulatory agent VGX-1027. Eur J Pharmacol. 2008 May 31;586(1-3):313-21.