



上海源叶生物科技有限公司
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产品名称: **cGAMP**
CAS 号: **849214-04-6**
产品货号: **S88189**

生物活性:				
Description	cGAMP (Cyclic GMP-AMP) 作为内源性第二信使发挥作用, 并触发干扰素的产生以响应胞浆 DNA。cGAMP 激活干扰素基因刺激因子 (STING), 激活导致产生 I 型干扰素和其他免疫介质的信号级联。			
IC50 & Target	Endogenous Metabolite			
Cellular Effect	Cell Line	Type	Value	Description
	H69AR	EC ₅₀	4.74 μ M	Activation of wild-type human STING expressed in human THP1-Dual cells co-expressing IRF3-activated ISRE assessed as IRF3 reporter activation measured after 7 hrs by luciferase reporter gene assay
	H69AR	EC ₅₀	58.46 μ M	Activation of wild-type human STING expressed in digitonin treated human THP1-Dual cells co-expressing IRF3-activated ISRE assessed as IRF3 reporter activation measured after 30 mins by luciferase reporter gene assay
	L929	EC ₅₀	20 nM	Inhibition of STING in mouse L929 cells assessed as reduction in cGAMP induce IFN β expression measured after 4 hrs by qRT-PCR
	PBMC	EC ₅₀	> 300 μ M	Induction of TNF- α production in healthy human PBMC incubated for 16 hrs
	PBMC	EC ₅₀	15.14 μ M	Induction of INF- γ production in healthy human PBMC incubated for 16 hrs
	PBMC	EC ₅₀	17.25 μ M	Induction of IFN γ secretion in human PBMC incubated for 16 hrs
	PBMC	EC ₅₀	18.72 μ M	Induction of TNF α secretion in human PBMC incubated for 16 hrs
	PBMC	EC ₅₀	26.71 μ M	Induction of INF- α production in healthy human PBMC incubated for 16 hrs
	PBMC	EC ₅₀	7.65 μ M	Induction of IFN α secretion in human PBMC incubated for 16 hrs
In Vitro	cGAMP 可促进小鼠脾细胞的抗原特异性增殖能力[2]。 cGAMP 可在体外直接激活小鼠和人类树突状细胞[2]。 在 cGAMP 刺激下, 患者的成纤维细胞中 IFNB1 转录增加, 但编码白细胞介素-1 (IL1)、白细胞介素-6 (IL6) 或肿瘤坏死因子的基因转录没有增加。 (TNF)[3]。 cGAMP 激活内质网 (ER) 驻留受体 STING, 从而诱导抗病毒状态和 I 型干扰素的分泌[4]。			
In Vivo	cGAMP (5 μ g; 鼻黏膜佐剂) 可促进免疫小鼠脾细胞产生抗原特异性细胞因子[2]。			
	Animal Model:	Female C57BL/6 (H-2b) mice 6–8 weeks old[2]		
	Dosage:	5 μ g		
	Administration:	Nostril mucosal adjuvant		



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	Result:	Higher titers of ovalbumin (OVA)-specific IgA and total IgG as well as IgG1 and IgG2c in the sera of mice immunized with cGAMP-adjuvanted OVA as compared to sera from OVA-immunized mice.			
Solvent&Solubility	细胞实验: H2O 中的溶解度 : 180 mg/mL (266.90 mM; 超声助溶)				
	Preparing Stock Solutions	Solvent Concentration Mass	1 mg	5 mg	10 mg
		1 mM	1.4828 mL	7.4139 mL	14.8278 mL
		5 mM	0.2966 mL	1.4828 mL	2.9656 mL
		10 mM	0.1483 mL	0.7414 mL	1.4828 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。 * 备注：如您选择水作为储备液，请稀释至工作液后，再用 0.22 μm 的滤膜过滤除菌后使用。				
参考文献	[1]. Wu J, et al. Cyclic GMP-AMP is an endogenous second messenger in innate immune signaling by cytosolic DNA. Science. 2013 Feb 15;339(6121):826-30. [2]. Skrnjug I, et al. Cyclic GMP-AMP displays mucosal adjuvant activity in mice. PLoS One. 2014 Oct 8;9(10):e110150. [3]. Liu Y, et al. Activated STING in a vascular and pulmonary syndrome. N Engl J Med. 2014 Aug 7;371(6):507-18. [4]. Ablasser A, et al. Cell intrinsic immunity spreads to bystander cells via the intercellular transfer of cGAMP. Nature. 2013 Nov 28;503(7477):530-4.				
完整储备液配制表: 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。					
可选溶剂	质量 溶剂体积 浓度	1 mg	5 mg	10 mg	25 mg
H2O	1 mM	1.4828 mL	7.4139 mL	14.8278 mL	37.0694 mL
	5 mM	0.2966 mL	1.4828 mL	2.9656 mL	7.4139 mL
	10 mM	0.1483 mL	0.7414 mL	1.4828 mL	3.7069 mL
	15 mM	0.0989 mL	0.4943 mL	0.9885 mL	2.4713 mL
	20 mM	0.0741 mL	0.3707 mL	0.7414 mL	1.8535 mL
	25 mM	0.0593 mL	0.2966 mL	0.5931 mL	1.4828 mL
	30 mM	0.0494 mL	0.2471 mL	0.4943 mL	1.2356 mL



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	40 mM	0.0371 mL	0.1853 mL	0.3707 mL	0.9267 mL
	50 mM	0.0297 mL	0.1483 mL	0.2966 mL	0.7414 mL
	60 mM	0.0247 mL	0.1236 mL	0.2471 mL	0.6178 mL
	80 mM	0.0185 mL	0.0927 mL	0.1853 mL	0.4634 mL
	100 mM	0.0148 mL	0.0741 mL	0.1483 mL	0.3707 mL

备注: 如您选择水作为储备液, 请稀释至工作液后, 再用 0.22 μm 的滤膜过滤除菌后使用。



源叶