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产品名称: **BRD7389**
CAS 号: **376382-11-5**
产品货号: **T43921**

生物活性:						
Description	BRD7389 is a specific RSK family kinase inhibitor with IC50s of 1.5 μM, 2.4 μM, and 1.2 μM for RSK1, RSK2, and RSK3, respectively. BRD7389 is a small-molecule inducer of insulin expression in pancreatic α-cells[1].					
IC50 & Target	RSK1	RSK2	RSK3	CDK5/p35	DRAK1	FLT3
	1.5 μM (IC50)	2.4 μM (IC50)	1.2 μM (IC50)	6.5 μM (IC50)	2.8 μM (IC50)	3.5 μM (IC50)
	PIM1	PKG1α	SGK			
	3.7 μM (IC50)	6.5 μM (IC50)	13.8 μM (IC50)			
In Vitro	BRD7389 (0.425-6.8 μM) induces insulin expression in mouse α-cells after 3 days treatment. BRD7389 induces a dose-dependent up-regulation of insulin (Ins2) mRNA, peaking at 0.85 μM; 5 days treatment with BRD7389 results in greater induction of insulin gene expression, about 50-fold at 0.85 μM[1].					
	BRD7389 (0.85-6.8μM) significantly up-regulates Pdx1 mRNA expression in mouse α-cell line[1].					
	BRD7389 also increases β-cell-specific gene expression in primary human islet cells[1].					
	BRD7389 (1 μM; added 30 min prior to Carbachol treatment 48 h) fully abolishes carbachols timulated cell proliferation, but has little effect on the basal level of proliferation[2].					
	RT-PCR[1]					
	Cell Line:		Mouse α-cell line			
	Concentration:		0.425, 0.85, 1.7, 3.4, 6.8 μM			
	Incubation Time:		3 days and 5 days			
	Result:		Up-regulated expression of Pdx1.			
	Cell Proliferation Assay[2]					
	Cell Line:		SNU-407 colon cancer cell			
	Concentration:		1 μM			
	Incubation Time:		Added 30 min prior to Carbachol treatment (48 h)			
	Result:		Almost completely blocked Carbachol (1 mM)-stimulated cell proliferation.			
细胞实验:						
DMSO 中的溶解度 : 20.83 mg/mL (56.85 mM; 超声助溶 (<60°C); 吸湿的 DMSO 对产品的溶解度有显著影响, 请使用新开封的 DMSO)						
Preparing Stock Solutions		Solvent / Mass / Concentration	1 mg	5 mg	10 mg	
		1 mM	2.7292 mL	13.6459 mL	27.2918 mL	
		5 mM	0.5458 mL	2.7292 mL	5.4584 mL	
		10 mM	0.2729 mL	1.3646 mL	2.7292 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 (protect from light)。-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。						



参考文献

- [1]. Fomina-Yadlin D, et al. Small-molecule inducers of insulin expression in pancreatic alpha-cells. Proc Natl Acad Sci U S A. 2010 Aug 24;107(34):15099-104.
- [2]. Park YS, et al. EGFR and PKC are involved in the activation of ERK1/2 and p90 RSK and the subsequent proliferation of SNU-407 colon cancer cells by muscarinic acetylcholine receptors. Mol Cell Biochem. 2012 Nov;370(1-2):191-8.

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 (protect from light)。-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
DMSO	1 mM	2.7292 mL	13.6459 mL	27.2918 mL	68.2296 mL
	5 mM	0.5458 mL	2.7292 mL	5.4584 mL	13.6459 mL
	10 mM	0.2729 mL	1.3646 mL	2.7292 mL	6.8230 mL
	15 mM	0.1819 mL	0.9097 mL	1.8195 mL	4.5486 mL
	20 mM	0.1365 mL	0.6823 mL	1.3646 mL	3.4115 mL
	25 mM	0.1092 mL	0.5458 mL	1.0917 mL	2.7292 mL
	30 mM	0.0910 mL	0.4549 mL	0.9097 mL	2.2743 mL
	40 mM	0.0682 mL	0.3411 mL	0.6823 mL	1.7057 mL
	50 mM	0.0546 mL	0.2729 mL	0.5458 mL	1.3646 mL