## Data Sheet (Cat.No.T14779)



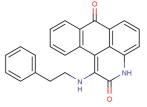
### BRD7389

## **Chemical Properties**

CAS No.: 376382-11-5 Formula: C24H18N2O2

Molecular Weight: 366.41
Appearance: N/A

Storage: 0-4°C for short term (days to weeks), or -20°C for long term (months).



# **Biological Description**

Description	BRD7389 is an inducer of insulin expression in pancreatic $\alpha$ -cells and a specific inhibitor of RSK family kinase (IC50s: 1.5 $\mu$ M, 2.4 $\mu$ M, and 1.2 $\mu$ M for RSK1, RSK2, and RSK3).		
Targets(IC <sub>50</sub> )	RSK1: 1.5 μM RSK2: 2.4 μM RSK3: 1.2 μM CDK5/p35: 6.5 μM DRAK1: 2.8 μM FLT3: 3.5 μM PIM1: 3.7 μM PKG1α: 6.5 μM SGK: 13.8 μM		
In vitro	BRD7389 also increases $\beta$ -cell-specific gene expression in primary human islet cells. BRD7389 induces a dose-dependent up-regulation of insulin (Ins2) mRNA, peaking at 0.85 $\mu$ M; 5 days treatment with BRD7389 results in greater induction of insulin gene expression, about 50-fold at 0.85 $\mu$ M. BRD7389 (0.425-6.8 $\mu$ M) induces insulin expression in mouse $\alpha$ -cells after 3 days of treatment. BRD7389 (0.85-6.8 $\mu$ M) significantly up-regulates Pdx1 mRNA expression in mouse $\alpha$ -cell line [1]. BRD7389 (1 $\mu$ M; added 30 min prior to Carbachol treatment 48 h) fully abolishes carbachol stimulated cell proliferation but has little effect on the basal level of proliferation [2].		

# Solubility Information

Solubility < 1 mg/ml refers to the product slightly soluble or insoluble	Solubility
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#### **Preparing Stock Solutions**

	1mg	5mg	10mg
1 mM	2.729 mL	13.646 mL	27.292 mL
5 mM	0.546 mL	2.729 mL	5.458 mL
10 mM	0.273 mL	1.365 mL	2.729 mL
50 mM	0.055 mL	0.273 mL	0.546 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 °C for 6 months; - 20 °C for 1 month. Please use it as soon as possible.

#### Reference

- 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.

## Inhibitors · Natural Compounds · Compound Libraries

## This product is for Research Use Only $\cdot$ Not for Human or Veterinary or Therapeutic Use.

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