
Product Data Sheet

Product Name: BRD 7389

Cat. No.: GC16779

Chemical Properties

Cas. No. 376382-11-5

Chemical Name 2-hydroxy-1-(phenethylamino)-7H-naphtho[1,2,3-de]quinolin-7-one

SMILES O=C1C2=CC=CC=C2C3=C(NCCC4=CC=CC=C4)C(O)=NC5=CC=CC1=C53Formula $C_{24}H_{18}N_2O_2$ M.Wt 366.41Solubility DMF: 20 mg/mL, DMF:PBS (pH 7.2)(1:3): 0.25 mg/mL, DMSO: 12.5 mg/mL, Ethanol: slightly soluble
Storage protect from light 4°C,

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT, or blue ice upon request.

Structure **Background**

BRD7389 is a Rsk family kinase inhibitor. [1]

Rsk has been suggested to phosphorylate a large number of cellular substrates and plays an important role in promoting cell growth and survival. Knockdown of Rsk family members would have an effect on insulin production in α -cells. Increasing in insulin expression upon RNAi of individual Rsk proteins can be observed, but the effect is not as strong as compound treatment with BRD7389.[1]

BRD7389 functions by inhibiting multiple Rsk family members simultaneously. BRD7389 also increases β -cell-specific gene expression in primary human islet cells. Assay-performance profile analysis suggests biochemical and cellular inhibition of the Rsk kinase family by BRD7389 is likely related to its ability induce a β -cell-like state. [2]

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

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Treatment of TC1 cells with BRD7389 led to a decrease in the overall glycolytic activity and mitochondrial respiration rates, a phenotype reminiscent of the beta cell line. BRD7389 also increases the endocrine cell content and function of donor human pancreatic islets in culture.[2,3]

References:

- [1]Sapkota GP, Cummings L, Newell FS,etal. , BI-D1870 is a specific inhibitor of the p90 RSK (ribosomal S6 kinase) isoforms in vitro and in vivo. Biochem J. 2007 Jan 1;401(1):29-38.
- [2]Choudhary A, Hu He K, Mertins P, etal. , Quantitative-proteomic comparison of alpha and Beta cells to uncover novel targets for lineage reprogramming. PLoS One. 2014 Apr 23;9(4):e95194.
- [3]Fomina-Yadlin D, Kubicek S, Walpita D,etal. , Small-molecule inducers of insulin expression in pancreatic alpha-cells. Proc Natl Acad Sci U S A. 2010 Aug 24;107(34):15099-104.

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