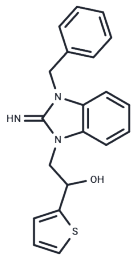
Data Sheet (Cat.No.T210734)

SW016789

Chemical Properties



CAS No. : 292613-04-8

Formula: C20H19N3OS

Molecular Weight: 349.45

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	SW016789 is a potent high-secretion inducer targeting VDAC1, which directly stimulates insulin secretion and calcium ion influx in β cells. It transiently induces endoplasmic reticulum stress (ER stress) without causing β cell death. The response it triggers is reversible and non-apoptotic, making SW016789 useful for studying β cell dysfunction in type 2 diabetes (T2DM).
Targets(IC50)	VDAC
In vitro	SW016789 (5 μM; 0-24 h) initially boosts glucose-stimulated insulin secretion in the span of 1-2 hours, yet impairs β cell function with extended exposure (4-24 h) in MIN6 cells. However, SW016789 (5 μM; 24-72 h) does not compromise beta cell viability or induce apoptosis in these cells. At 5 μM for 24 hours, SW016789 enhances nutrient-stimulated Ca 2+ influx, resulting in excessive secretion. VDAC1 is identified as a pharmacological target for inducing insulin hypersecretion in both mouse MIN6 cells and human EndoC-βH1 cells.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.8616 mL	14.3082 mL	28.6164 mL
5 mM	0.5723 mL	2.8616 mL	5.7233 mL
10 mM	0.2862 mL	1.4308 mL	2.8616 mL
50 mM	0.0572 mL	0.2862 mL	0.5723 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

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