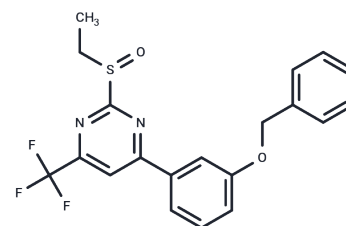


BETP

Chemical Properties

CAS No. : 1371569-69-5
Formula: C₂₀H₁₇F₃N₂O₂S
Molecular Weight: 406.42
Appearance: no data available
Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year



Biological Description

Description	BETP is an agonist of GLP-1 receptor (EC ₅₀ s: 0.66 and 0.755 μM for human and rat GLP-1 receptor).
Targets(IC ₅₀)	Glucagon Receptor
In vitro	BETP (Compound B) is inactive in cells expressing the GLP-2, GIP, PTH, or glucagon receptors. BETP (1-10 μM) enhances insulin secretion in normal and diabetic human islets. In addition, BETP in combination with GLP-1 shows additive effects on increasing GLP-1 receptor signaling [1]. BETP increases the potency of oxyntomodulin by 10-fold (EC ₅₀ : 80 pM). GLP-1 does not change the potencies and efficacies of both oxyntomodulin and glucagon at the glucagon receptor. BETP (0-30 μM) increases the binding affinity of oxyntomodulin for the GLP-1 receptor [2].
In vivo	BETP (10 mg/kg, jugular vein cannula) exhibits insulin secretagogue activity in the intravenous glucose tolerance test (IVGTT) model. BETP (10 mg/kg, i.v.)-treated rats need 20% higher glucose infusion rates and demonstrate higher plasma insulin levels in the SD rat hyperglycemic clamp model [1]. BETP (5 mg/kg) enhances oxyntomodulin-stimulated insulin secretion [2].
Animal Research	IVGTT studies are performed. Male SD rats are group-housed three per cage in polycarbonate cages with filter tops. Rats are maintained on a 12:12 h light-dark cycle (lights on at 6:00 a.m.) at 21°C and receive diet and deionized water ad libitum. Rats were fasted overnight and anesthetized with 60 mg/kg pentobarbital for the duration of the experiment. For glucose and compounds (BETP, etc.) administration, a catheter with a diameter of 0.84 mm is inserted into the jugular vein. For rapid blood collection, a larger catheter with 1.02-mm diameter is inserted into the carotid artery. Blood is collected for glucose and insulin levels at times 0, 2, 4, 6, 10, and 20 min after intravenous administration of the BETP which is immediately followed by an intravenous glucose bolus of 0.5 g/kg. Plasma levels of glucose and insulin are determined [1].

Solubility Information

Solubility	H ₂ O: Insoluble, DMSO: 25 mg/mL (61.51 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.4605 mL	12.3025 mL	24.6051 mL
5 mM	0.4921 mL	2.4605 mL	4.921 mL
10 mM	0.2461 mL	1.2303 mL	2.4605 mL
50 mM	0.0492 mL	0.2461 mL	0.4921 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.

Reference

Sloop KW, et al. Novel small molecule glucagon-like peptide-1 receptor agonist stimulates insulin secretion in rodents and from human islets. Diabetes. 2010 Dec;59(12):3099-107.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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Tel:781-999-4286 E_mail:info@targetmol.com Address:36 Washington Street,Wellesley Hills,MA 02481