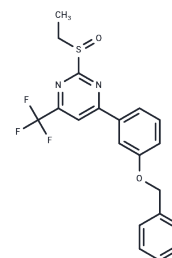


## BETP

## Chemical Properties

CAS No. :	1371569-69-5
Formula:	C <sub>20</sub> H <sub>17</sub> F <sub>3</sub> N <sub>2</sub> O <sub>2</sub> S
Molecular Weight:	406.42
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	BETP is an agonist of GLP-1 receptor (EC <sub>50</sub> s: 0.66 and 0.755 $\mu$ M for human and rat GLP-1 receptor).
Targets(IC <sub>50</sub> )	Glucagon Receptor
In vitro	BETP (Compound B) is inactive in cells expressing the GLP-2, GIP, PTH, or glucagon receptors. BETP (1-10 $\mu$ M) 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 <sub>50</sub> : 80 $\mu$ M). GLP-1 does not change the potencies and efficacies of both oxyntomodulin and glucagon at the glucagon receptor. BETP (0-30 $\mu$ M) 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 <sub>2</sub> 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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In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (4.92 mM),Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>
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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.

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.

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.

Willard FS, et al. Small molecule allosteric modulation of the glucagon-like Peptide-1 receptor enhances the insulinotropic effect of oxyntomodulin. *Mol Pharmacol*. 2012 Dec;82(6):1066-73.

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