

Fezagepras sodium

Chemical Properties

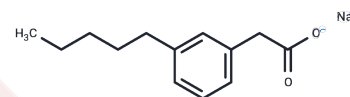
CAS No. : 1254472-97-3

Formula: C₁₃H₁₇NaO₂

Molecular Weight: 228.26

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 | Fezagepras sodium (Setogepam sodium salt) is an orally active GPR40 agonist and is an antagonist or inverse agonist for GPR84, with anti-fibrotic, anti-inflammatory and anti-proliferative actions. |
| Targets(IC50) | GPCR |
| In vitro | PBI-4050 inhibited kidney macrophage infiltration, oxidative stress, and TGF- β -mediated fibrotic signaling pathways, and it also protected against the development of tubulointerstitial fibrosis. To confirm a direct antiinflammatory/antifibrotic effect in the kidney, further studies with a nondiabetic model of EGFR-mediated proximal tubule activation confirmed that PBI-4050 dramatically decreased the development of the associated tubulointerstitial injury and macrophage infiltration[1]. |
| In vivo | eNOS-/- db/db mice were treated with PBI-4050 from 8-20 weeks of age (early treatment) or from 16-24 weeks of age (late treatment). PBI-4050 treatment ameliorated the fasting hyperglycemia and abnormal glucose tolerance tests seen in vehicle-treated mice. In addition, PBI-4050 preserved (early treatment) or restored (late treatment) blood insulin levels and increased autophagy in islets. PBI-4050 treatment led to significant improvements in lifespan in the diabetic mice. Both early and late PBI-4050 treatment protected against progression of DN, as indicated by reduced histological glomerular injury and albuminuria, slow decline of glomerular filtration rate, and loss of podocytes[1]. |

Solubility Information

| | |
|---------------------|--|
| Solubility | H ₂ O: 90 mg/mL (394.29 mM),Sonication is recommended. DMSO: 60 mg/mL (262.86 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble) |
| In vivo Formulation | 10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (8.76 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> |

Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|-------|------------|------------|-------------|
| 1 mM | 4.381 mL | 21.9048 mL | 43.8097 mL |
| 5 mM | 0.8762 mL | 4.381 mL | 8.7619 mL |
| 10 mM | 0.4381 mL | 2.1905 mL | 4.381 mL |
| 50 mM | 0.0876 mL | 0.4381 mL | 0.8762 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

Li Y, et al. Fatty acid receptor modulator PBI-4050 inhibits kidney fibrosis and improves glycemic control. JCI Insight. 2018 May 17;3(10). pii: 120365.

Grouix B, et al. PBI-4050 Reduces Stellate Cell Activation and Liver Fibrosis through Modulation of Intracellular ATP Levels and the Liver Kinase B1/AMP-Activated Protein Kinase/Mammalian Target of Rapamycin Pathway. J Pharmacol Exp Ther. 2018 Oct;367(1):71-81.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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