

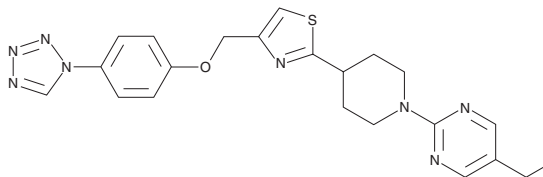
# PRODUCT INFORMATION



## MBX-2982

Item No. 22206

**CAS Registry No.:** 1037792-44-1  
**Formal Name:** 5-ethyl-2-[4-[4-[[4-(1H-tetrazol-1-yl)phenoxy]methyl]-2-thiazolyl]-1-piperidiny]-pyrimidine  
**MF:** C<sub>22</sub>H<sub>24</sub>N<sub>8</sub>OS  
**FW:** 448.5  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 250 nm  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

MBX-2982 is supplied as a crystalline solid. A stock solution may be made by dissolving the MBX-2982 in the solvent of choice. MBX-2982 is soluble in the organic solvent chloroform, which should be purged with an inert gas, at a concentration of approximately 30 mg/ml. MBX-2982 is slightly soluble in DMSO and dimethyl formamide.

### Description

MBX-2982 is a agonist of GPR119.<sup>1</sup> It reduces nuclear and total protein levels of sterol regulatory element binding protein 1 (SREBP-1) in HepG2 cells and rat primary hepatocytes under high-glucose and -insulin conditions and increases phosphorylation of the inhibitory form, SREBP-1c. MBX-2982 (10 mg/kg) inhibits hepatic lipid accumulation in wild-type, but not GPR119 knockout, mice fed a high-fat diet. It also increases plasma levels of glucagon-like peptide 1 (GLP-1; Item No. 24460) in mice when administered at a dose of 10 mg/kg prior to, and to a greater extent following, glucose administration.<sup>2</sup> MBX-2982 increases glucokinase activity in an enzyme assay with an EC<sub>50</sub> value of 45.11 μM.<sup>3</sup>

### References

1. Yang, J.W., Kim, H.S., Im, J.H., *et al.* GPR119: A promising target for nonalcoholic fatty liver disease. *FASEB J.* **30(1)**, 324-335 (2016).
2. Lan, H., Lin, H.V., Wang, C.F., *et al.* Agonists at GPR119 mediate secretion of GLP-1 from mouse enteroendocrine cells through glucose-independent pathways. *Br. J. Pharmacol.* **165(8)**, 2799-2807 (2012).
3. Spasov, A.A., Kosolapov, V.A., Babkov, D.A., *et al.* Effect of GRP119 receptor agonist, compound MBX-2982, on activity of human glucokinase. *Bull. Exp. Biol. Med.* **163(5)**, 695-698 (2017).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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