MK-8245
Item No. 29421

CAS Registry No.: 1030612-90-8
Formal Name: 5-[3-[4-(2-bromo-5-fluorophenoxy)-1-piperidinyl]-5-isoxazolyl]-2H-tetrazole-2-acetic acid
MF: C₁₇H₁₆BrFN₆O₄
FW: 467.3
Purity: ≥98%
UV/Vis.: \( \lambda_{\text{max}} \): 229 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**

MK-8245 is supplied as a crystalline solid. A stock solution may be made by dissolving the MK-8245 in the solvent of choice, which should be purged with an inert gas. MK-8245 is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of MK-8245 in these solvents is approximately 30 mg/ml.

MK-8245 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, MK-8245 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. MK-8245 has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

**Description**

MK-8245 is a liver-targeted inhibitor of stearoyl-CoA desaturase (SCD; IC₅₀ = 3, 3, and 1 nM for rat, mouse, and human SCD1, respectively).¹ It is selective for SCD1 over \( \Delta^5 \)- and \( \Delta^6 \)-desaturases (IC₅₀ = >100,000 nM). MK-8245 (20-60 mg/kg) reduces the hepatic, but not Harderian gland, ratio of oleic acid to stearic acid, a marker of chronic SCD activity, and blood glucose levels, without inducing the formation of skin lesions or eye squinting behavior, in a mouse model of high-fat diet-induced obesity. It also inhibits hepatitis C virus (HCV) replication without inducing cytotoxicity in LucNeo2 cells (IC₅₀ = 39.8 nM).²

**References**