

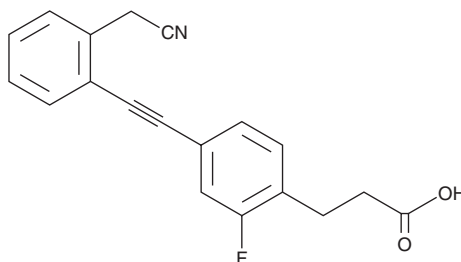
PRODUCT INFORMATION



TUG-770

Item No. 22131

CAS Registry No.: 1402601-82-4
Formal Name: 4-[2-[2-(cyanomethyl)phenyl]ethynyl]-2-fluoro-benzenepropanoic acid
MF: C₁₉H₁₄FNO₂
FW: 307.3
Purity: ≥98%
UV/Vis.: λ_{max}: 203, 285 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

TUG-770 is supplied as a crystalline solid. A stock solution may be made by dissolving the TUG-770 in the solvent of choice. TUG-770 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of TUG-770 in ethanol is approximately 1 mg/ml and approximately 10 mg/ml in DMSO and DMF.

TUG-770 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, TUG-770 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. TUG-770 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

TUG-770 is an agonist of free fatty acid receptor 1 (FFA1/GPR40; EC₅₀ = 6.16 nM for a response to the full FFA1 agonist TUG-20 in a calcium assay in 1311N1 cells).¹ It is selective for FFA1 over FFA2 (EC₅₀ = 933 nM in a BRET assay). It reduces glucose levels in mice in an intraperitoneal glucose tolerance test in a dose-dependent manner with a maximal reduction at a dose of 50 mg/kg. It also reduces glucose levels in an oral glucose tolerance test in a diet-induced obesity mouse model for at least 29 days.

Reference

- Christiansen, E., Hansen, S.V.F., Urban, C., *et al.* Discovery of TUG-770: A highly potent free fatty acid receptor 1 (FFA1/GPR40) agonist for treatment of type 2 diabetes. *ACS Med. Chem. Lett.* **4**(5), 441-445 (2013).

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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