

Product Name: LTGO 33

Catalog No.: 8865

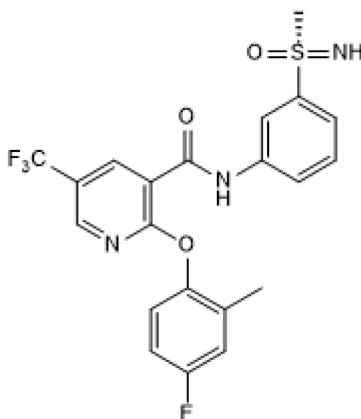
Batch No.: 2

CAS Number: 2834106-06-6

IUPAC Name: (R)-2-(4-Fluoro-2-methylphenoxy)-N-(3-(S-methylsulfonimidoyl)phenyl)-5-(trifluoromethyl)nicotinamide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₁H₁₇F₄N₃O₃S
Batch Molecular Weight: 467.44
Physical Appearance: Beige solid
Solubility: DMSO to 100 mM
 ethanol to 100 mM
Storage: Store at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 98.4% purity
Chiral HPLC: Shows 99.0% purity
¹H NMR: Consistent with structure
 Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	53.96	3.67	8.99
Found	53.34	3.6	8.81

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

LTGO-33 is a potent and selective state-independent inhibitor of Na_v1.8 sodium channels (IC₅₀ = 13 nM for the closed state; IC₅₀ = 24 nM for the inactive state). It displays 600-fold selectivity over other sodium channels such as Na_v1.1-1.7 and Na_v1.9. By binding to Na_v1.8 channels, LTGO-33 inhibits action potential initiation and transmission of pain signals in human DRG neurons. Unlike other Na_v1.8 inhibitors that preferentially interact with an inactivated state via the pore region, LTGO-33 is state-independent with similar potencies against closed and inactivated channels. Please see product specific page on www.tocris.com for full description.

Physical and Chemical Properties:

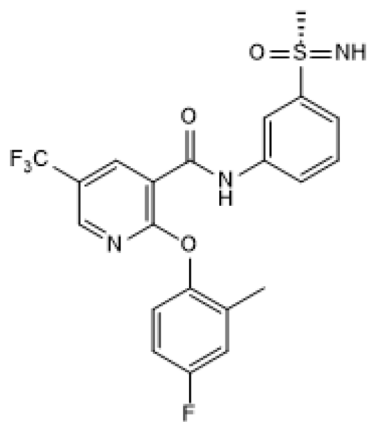
Batch Molecular Formula: C₂₁H₁₇F₄N₃O₃S

Batch Molecular Weight: 467.44

Physical Appearance: Beige solid

Minimum Purity: ≥98%

Batch Molecular Structure:



References:

Gilchrist et al (2024) Pharmacologic characterization of LTGO-33, a selective small molecule inhibitor of the voltage-gated sodium channel Na_v1.8 with a unique mechanism of action. *Mol.Pharmacol* **105** 233. PMID: 38195157.

Storage: Store at -20°C

Solubility & Usage Info:

DMSO to 100 mM

ethanol to 100 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

Licensing Information:

Sold with kind permission of Latigo Biotherapeutics

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