

Certificate of Analysis

Product Name: FTY 720

Catalog No.: 6176

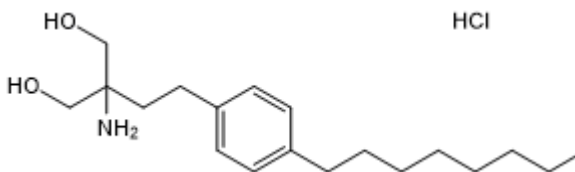
Batch No.: 1

CAS Number: 162359-56-0

IUPAC Name: 2-Amino-2-[2-(4-octylphenyl)ethyl]propane-1,3-diol hydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₉H₃₃NO₂.HCl
Batch Molecular Weight: 343.93
Physical Appearance: White solid
Solubility: water to 100 mM
DMSO to 100 mM
Storage: Store at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.7% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	66.35	9.96	4.07
Found	66.22	10.24	4.04

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

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Description:

S1P receptor agonist; undergoes phosphorylation by sphingosine kinase 2, which then binds S1P_{1,3,4} and S₅ receptors (EC₅₀ values are 0.3 - 0.6 nM for S1P_{1, 4} and S₅ and ~3 nM for S1P₃). Immunosuppressant; sequesters lymphocytes in lymph nodes, reducing autoimmune response. Suppresses the development of EAE (an in vivo model of MS). Orally bioavailable and blood-brain barrier permeable.

Physical and Chemical Properties:

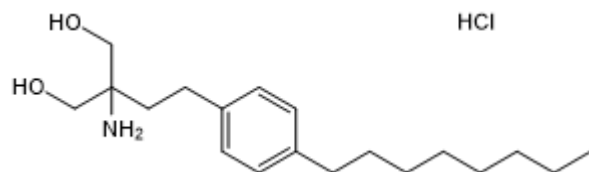
Batch Molecular Formula: C₁₉H₃₃NO₂·HCl

Batch Molecular Weight: 343.93

Physical Appearance: White solid

Minimum Purity: >99%

Batch Molecular Structure:



Storage: Store at -20°C

Solubility & Usage Info:

water to 100 mM
DMSO 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. Our standard recommendations are:

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.

References:

Hopkins et al (2011) ACS chemical neuroscience molecule spotlight on gilenya (fingolimod; FTY720). ACS Chem. Neurosci. **2** 116. PMID: 22778861.

Brinkmann et al (2010) Fingolimod (FTY720): discovery and development of an oral drug to treat multiple sclerosis. Nat. Rev. Drug Discov. **9** 883. PMID: 21031003.

Coelho et al (2007) The immunomodulator FTY720 has a direct cytoprotective effect in oligodendrocyte progenitors. J.Pharmacol.Exp.Ther. **323** 626. PMID: 17726159.

Shiow et al (2006) CD69 acts downstream of interferon-alpha/beta to inhibit S1P₁ and lymphocyte egress from lymphoid organs. Nature **440** 540. PMID: 16525420.

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