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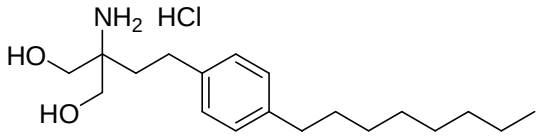
Technical Data Sheet

For research use only
Not intended or approved for diagnostic or therapeutic use.

Product Name: 2-Amino-2-(4-octylphenethyl)propane-1,3-diol hydrochloride Immunosuppressive Agent FTY720

Product Number: B-0720



Formula: $C_{19}H_{33}NO_2$ x HCl, Mol. Wt.: 343.93

Solubility: Ethanol, DMSO, DMF – at least 20 mg/mL, ethanol:PBS (pH 7.2) 1:1 – 0.2 mg/mL

Storage: store dry at -20°C. Stock solutions can be prepared in organic solvent and flushed with inert gas. Aqueous solutions should not be store longer than 1 day

Field of Interest: 2-Amino-2-(4-octylphenethyl)propane-1,3-diol hydrochloride (FTY720) is a structural analog of sphingosine as well as a substrate for sphingosine kinase. The phosphorylated FTY720 acts as a potent agonist at four of the sphingosine-1-phosphate (S1P) receptors ($S1P_1$, $S1P_3$, $S1P_4$, and $S1P_5$). FTY720 also enhances the activity of the sphingosine transporter Abcb1 and the leukotriene C_4 transporter Abcc1 and inhibits cytosolic phospholipase A_2 activity. It is a novel immune modulator that prolongs allograft transplant survival in numerous models by inhibiting lymphocyte emigration from lymphoid organs. Animal studies suggest that FTY720 can effectively treat several autoimmune diseases and a recently completed Phase II clinical trial highlighted FTY720 as a potential therapy for relapsing-remitting multiple sclerosis. The product is not sterile.

Reference: 1 Brinkmann, V., Pinschewer, D.D., Feng, L., et al. FTY720: Altered lymphocyte traffic results in allograft protection. Transplantation 72 764-769 (2001); **2** Brinkmann, V., Davis, M.D., Heise, C.E., et al. The immune modulator FTY720 targets sphingosine 1-phosphate receptors. J Biol Chem 277(24) 21453-21457 (2002); **3** Matloubian, M., Lo, C.G., Cinamon, G., et al. Lymphocyte egress from thymus and peripheral lymphoid organs is dependent on S1P receptor 1. Nature 427 355-360 (2004); **4** Honig, S.M., Fu, S., Mao, X., et al. FTY720 stimulates multidrug transporter- and cysteinyl leukotriene-dependent T cell chemotaxis to lymph nodes. J Clin Invest 111(5) 627-637 (2003); **5** Payne, S.G., Oskeritizian, C.A., Griffiths, R., et al. The immunosuppressant drug FTY720 inhibits cytosolic phospholipase A_2 independently of sphingosine-1-phosphate receptors. Blood 109(3) 1077-1085 (2007). **6** Baumruker T, Billich A, Brinkmann V. FTY720, an immunomodulatory sphingolipid mimetic: translation of a novel mechanism into clinical benefit in multiple sclerosis. Expert Opin Investig Drugs 16(3) 283-289 (2007).

Hazardous Properties and Cautions: The toxicological and pharmacological properties of this compound are not fully known. For further information see the MSDS on request. 2-Amino-2-(4-octylphenethyl)propane-1,3-diol hydrochloride is manufactured and shipped only in small quantities, intended for research and development in a laboratory utilizing prudent procedures for handling chemicals of unknown toxicity, under the supervision of persons technically qualified to evaluate potential risks and authorized to enforce appropriate health and safety measures. As with all research chemicals, precautions should be taken to avoid unnecessary exposures or risks.