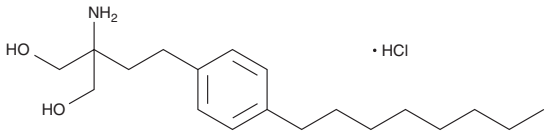
PRODUCT INFORMATION

Fingolimod (hydrochloride)

Item No. 10006292

CAS Registry No.: 162359-56-0
Formal Name: 2-amino-2-[2-(4-octylphenyl)ethyl]-1,3-propanediol, hydrochloride
Synonym: FTY720
MF: $C_{19}H_{33}NO_2 \bullet HCl$
FW: 343.9
Purity: ≥98%
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

Fingolimod (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the fingolimod (hydrochloride) in in the solvent of choice. Fingolimod (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of fingolimod (hydrochloride) in these solvents is approximately 20 mg/ml.

Fingolimod (hydrochloride) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, fingolimod (hydrochloride) should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. Fingolimod (hydrochloride) has a solubility of approximately 0.2 mg/ml in a 1:1 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Fingolimod is an immune modulator, a prodrug form of the sphingosine-1-phosphate (S1P) receptor agonist FTY720 phosphate (Item No. 10008639), and a derivative of myriocin (Item No. 63150).[1] It selectively inhibits calcium-dependent cytosolic phospholipase A_2 ($cPLA_2$) over calcium-independent PLA_2 ($iPLA_2$) and secretory PLA_2 ($sPLA_2$) (Type V) when used at a concentration of 800 pmol and inhibits S1P lyase when used at concentrations ranging from 0.3 to 30 µM.[2,3] Fingolimod (1 mg/kg) decreases the number of circulating lymphocytes in mice.[3] It increases skin allograft survival in rats when administered at doses ranging from 0.3 to 3 mg/kg.[4] Fingolimod (0.3 mg/kg) prevents disease development in a rat model of experimental autoimmune encephalomyelitis (EAE) induced by immunization with an emulsion of bovine spinal cord in complete Freund's adjuvant.[1] Formulations containing fingolimod have been used in the treatment of multiple sclerosis.

References

1. Brinkmann, V., Davis, M.D., Heise, C.E., *et al.*. *J. Biol. Chem.* **277(24)**, 21453-21457 (2002).
2. Payne, S.G., Oskeritizian, C.A., Griffiths, R., *et al. Blood* **109(3)**, 1077-1085 (2007).
3. Bandhuvula, P., Tam, Y.Y., Oskouian, B., *et al. J. Biol. Chem.* **280(40)**, 33697-33700 (2005).
4. Shimizu, H., Takahashi, M., Kaneko, T., *et al. Circulation* **111**, 222-229 (2005).

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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