

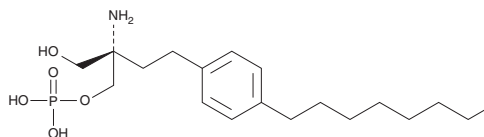
PRODUCT INFORMATION



FTY720 (S)-Phosphate

Item No. 10006408

CAS Registry No.: 402616-26-6
Formal Name: (2S)-amino-2-[2-(4-octylphenyl)ethyl]-1-(dihydrogen phosphate)-1,3-propanediol
Synonym: (S)-FTY 720P
MF: C₁₉H₃₄NO₅P
FW: 387.5
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

FTY720 (S)-Phosphate is supplied as a crystalline solid. A stock solution may be made by dissolving the FTY720 (S)-Phosphate in the solvent of choice, which should be purged with an inert gas. FTY720 (S)-Phosphate is soluble in the organic solvent chloroform at a concentration of approximately 0.5 mg/ml.

Description

FTY720 is a novel immune modulator that prolongs allograft transplant survival in numerous models by inhibiting lymphocyte emigration from lymphoid organs.¹ FTY720 is phosphorylated by sphingosine kinases *in vivo*, and then acts as a potent agonist at four of the five sphingosine-1-phosphate (S1P) receptors.² FTY720 (S)-phosphate is the single stereoisomer formed by phosphorylation of FTY720 *in vivo*, as determined in rats and humans.³ It exhibits K_i values of 2.1, 5.9, 23, and 2.2 nM for S1P_{1,3,4,5}, respectively, whereas the R enantiomer binds with 5 to 130-fold lower affinity.⁴ FTY720 (S)-phosphate causes internalization of S1P₁ on lymphocytes, abrogating S1P-dependent egress of lymphocytes from lymphoid organs. It also enhances endothelial barrier function, stimulates the activity of the sphingosine transporter Abcb1 and the leukotriene C₄ transporter Abcc1 and inhibits cytosolic phospholipase A₂ activity.^{5,6,7}

References

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2. Brinkmann, V., Davis, M.D., Heise, C.E., *et al.* *J. Biol. Chem.* **277(24)**, 21453-21457 (2002).
3. Albert, R., Hinterding, K., Brinkmann, V., *et al.* *J. Med. Chem.* **48**, 5373-5377 (2005).
4. Kiuchi, M., Adachi, K., Tomatsu, A., *et al.* *Bioorganic & Medicinal Chemistry* **13**, 425-432 (2005).
5. Brinkmann, V. *Yonsei Medical Journal* **45(6)**, 991-997 (2004).
6. Honig, S.M., Fu, S., Mao, X., *et al.* *J. Clin. Invest.* **111(5)**, 627-637 (2003).
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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.

WARRANTY AND LIMITATION OF REMEDY

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