

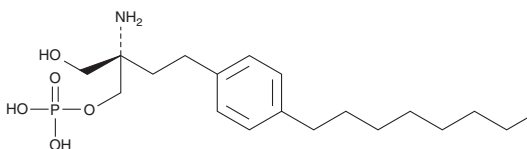
Product Information



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%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid



Laboratory Procedures

For long term storage, we suggest that FTY720 (S)-phosphate be stored as supplied at -20°C. It should be stable for at least two years.

FTY720 (S)-phosphate is supplied as a crystalline solid. A stock solution may be made by dissolving the FTY720 (S)-phosphate in an organic solvent purged with an inert gas. FTY720 (S)-phosphate is soluble in the organic solvent chloroform. The solubility of FTY720 (S)-phosphate in chloroform is approximately 0.5 mg/ml.

If aqueous stock solutions are required for biological experiments, they can best be prepared by diluting the organic solvent into aqueous buffers or isotonic saline. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

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,⁵ stimulates the activity of the sphingosine transporter Abcb1 and the leukotriene C₄ transporter Abcc1⁶ and inhibits cytosolic phospholipase A₂ activity.⁷

References

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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).
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Related Products

Sphingosine-1-phosphate - Item No. 62570 • FTY720 - Item No. 10006292 • FTY720 (R)-Phosphate - Item No. 10006407 • FTY720 Phosphoric Acid Ester - Item No. 10008639 • FTY720-NBD - Item No. 10008871

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WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent via email to your institution.

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