

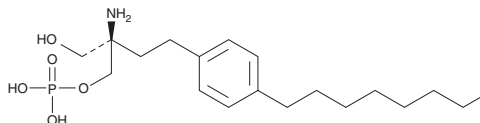
PRODUCT INFORMATION



FTY720 (R)-Phosphate

Item No. 10006407

CAS Registry No.: 402616-23-3
Formal Name: (2R)-amino-2-[2-(4-octylphenyl)ethyl]-1-(dihydrogen phosphate)-1,3-propanediol
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 (R)-phosphate is supplied as a crystalline solid. A stock solution may be made by dissolving the FTY720 (R)-phosphate in the solvent of choice, which should be purged with an inert gas. FTY720 (R)-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 (R)-phosphate is one of the stereoisomers of FTY720-phosphate, but it is apparently not formed *in vivo*.³ FTY720 (S)-phosphate exhibits K_i values of 2.1, 5.9, 23, and 2.2 nM for S1P_{1,3,4,5}, respectively, whereas the R isomer binds with 5 to 130-fold lower affinity.⁴

References

1. Brinkmann, V., Pinschewer, D.D., Feng, L., *et al.* FTY720: Altered lymphocyte traffic results in allograft protection. *Transplantation* **72(5)**, 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. Albert, R., Hinterding, K., Brinkmann, V., *et al.* Novel immunomodulator FTY720 is phosphorylated in rats and humans to form a single stereoisomer. Identification, chemical proof, and biological characterization of the biologically active species and its enantiomer. *J. Med. Chem.* **48(16)**, 5373-5377 (2005).
4. Kiuchi, M., Adachi, K., Tomatsu, A., *et al.* Asymmetric synthesis and biological evaluation of the enantiomeric isomers of the immunosuppressive FTY720-phosphate. *Bioorg. Med. Chem.* **13(2)**, 425-432 (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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CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM