

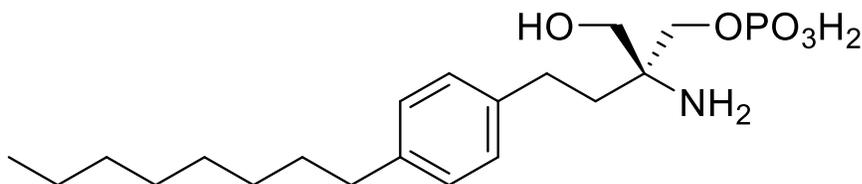
(S)-FTY720 Phosphate (FTY720P)

Catalog number: B-0721

Molecular Formula: C₁₉H₃₄NO₅P

MW: 387.45

CAS: 402616-26-6



Alternate Name: (2S)-amino-2-[2-(4-octylphenyl)ethyl]-1-(dihydrogen phosphate)-1,3-propanediol

Solubility: Soluble in MeOH (~1mg/mL). Note: the product requires sonication at 37°C to dissolve

Storage and Handling: Store dry at -20°C. Stock solutions can be prepared in organic solvent and flushed with inert gas. Aqueous solutions/suspensions should be stored at -20 °C.

Background: FTY720P is the bioactive form of the novel immunosuppressive drug fingolimod (FTY720). FTY720 is converted to FTY720P by sphingosine kinase and the (S)-isomer acts as an agonist to four S1P receptors (S1P_{1,3,4,5}) with IC₅₀s 2.1, 5.9, 23 and 2.2 nM respectively. The R-isomer binds with 5-10 fold lower affinity. FTY720P improves the survival of neonatal rat oligodendrocytes, regulates oligodendrocyte progenitor cells differentiation, promotes astrocyte migration *via* extracellular signal-regulated kinase (ERK) signaling. Recently published results indicate involvement of FTY720P in complete viral clearance of persistent infection caused by clone 13 of lymphocytic choriomeningitis virus (LCMV).

References: 1) Jung, C. G.; Kim, H. J.; Miron, V. E.; Cook, S.; Kennedy, T. E.; Foster, C. A.; Antel, J. P.; Soliven, B. Functional consequences of S1P receptor modulation in rat oligodendroglial lineage cells. *Glia* 2007, 55, 1656-67 2) Mullershausen, F.; Craveiro, L. M.; Shin, Y.; Cortes-Cros, M.; Bassilana, F.; Osinde, M.; Wishart, W. L.; Guerini, D.; Thallmair, M.; Schwab, M. E.; Sivasankaran, R.; Seuwen, K.; Dev, K. K. Phosphorylated FTY720 promotes astrocyte migration through sphingosine-1-phosphate receptors. *J Neurochem* 2007, 102, 1151-61 3) Osinde, M.; Mullershausen, F.; Dev, K. K. Phosphorylated FTY720 stimulates ERK phosphorylation in astrocytes via S1P receptors. *Neuropharmacology* 2007, 52, 1210-8 4) M. Premenko-Lanier, N. B. Moseley, S. T. Pruetz, P.A. Romagnoli, J. D. Altman Transient FTY720 Treatment promotes immune-mediated clearance of a chronic viral infection *Nature* 2008, 454, 894-898

Hazardous Properties and Cautions: The toxicological and pharmacological properties of this compound are not fully known. For further information see the MSDS on request. This product 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.

Warranty and Disclaimer: Echelon warrants the product conforms to the specifications stated herein. In the event of nonconformity, Echelon will replace products or refund purchase price, at its sole option, and Echelon shall not be responsible for any other loss or damage, whether known or foreseeable to Echelon. No other warranties apply, express or implied, including but not limited to warranty of fitness for any purpose or implied warranty of merchantability. Purchaser is solely responsible for all consequences of its use of the product and Echelon assumes no responsibility therefore, including success of purchaser's research and development, or health or safety of any uses of the product.

