Product Information



azido-FTY720

Item No. 10008612

CAS Registry No.: 881914-35-8

Formal Name: 2-amino-2-[2-(4-(1-azido-

2-octylphenyl))ethyl]-1,3-

propanediol

MF: $C_{19}H_{32}N_4O_2$ FW: 348.5

Purity: ≥98%

Stability: ≥2 years at -20°C Supplied as: A solution in ethanol λ_{max}: 213, 252, 284 nm UV/Vis.:

Laboratory Procedures

For long term storage, we suggest that azido-FTY720 be stored as supplied at -20°C. It will be stable for at least two

azido-FTY720 is supplied as a solution in ethanol. To change the solvent, simply evaporate the ethanol under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as DMSO and dimethyl formamide purged with an inert gas can be used. The solubility of azido-FTY720 in these solvents is approximately 20 mg/ml.

azido-FTY720 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the ethanolic solution of azido-FTY720 should be diluted with the aqueous buffer of choice. azido-FTY720 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.

FTY720 is potent immunosuppressive agent that prolongs allograft transplant survival in numerous models by inhibiting lymphocyte emigration from lymphoid organs. FTY720 is phosphorylated by sphingosine kinase, which then acts as a potent agonist at four of the sphingosine-1-phosphate (S1P) receptors (S1P₁, S1P₃, S1P₄, and S1P₅).² Downregulation of S1P₁ receptors on T and B lymphocytes by FTY720 results in defective egress of these cells from spleen, lymph nodes, and Peyer's patch.3 azido-FTY720 is a highly photoreactive analog of FTY720 that can be used to identify receptor binding sites for this ligand.4

References

- 1. Brinkmann, V., Pinschewer, D.D., Feng, L., et al. FTY720: Altered lymphocyte traffic results in allograft protection. Transplantation 72, 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. Matloubian, M., Lo, C.G., Cinamon, G., et al. Lymphocyte egress from thymus and peripheral lymphoid organs is dependent on S1P receptor 1. Nature 427, 355-360 (2004).
- 4. Sun, C. and Bittman, R. A photoreactive analogue of the immunosuppressant FTY720. J. Org. Chem. 71, 2200-2202 (2006).

Related Products

For a list of related products please visit: www.caymanchem.com/catalog/10008612

WARNING: This product is for laboratory research only: not for administration to humans. Not for human or veterinary DIAGNOSTIC OR THERAPEUTIC USE.

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 Safety Data Sl which has been sent via email to your institution

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