

Catalog # 10-2138 FTY720 HCI

CAS# 162359-56-0 Fingolimod 2-Amino-2-[2-(4-octylphenyl)ethyl]-1,3-propanediol hydrochloride Lot # X101929



An analog of sphingosine which, when taken up into cells, is phosphorylated and acts as an agonist at sphingosine-1-phosphate receptors (S1P1/3)¹. Potently inhibits regulatory T cell proliferation *in vitro* and *in vivo*². Enhances microvascular remodeling via expansion of arterioles and capillary networks³. Potent immunomodulator⁴. FTY-720 is also being investigated as a therapeutic for arrhythmias and heart failure vie its activation of Pak1/Akt signaling.^{5,6}

- 1) Brinkmann et al. (2002), The immune modulator FTY720 targets spingosine-1-phosphate receptors; J. Biol. Chem., **277** 21453
- 2) Wolf et al. (2009), The sphingosine 1-phosphate receptor agonist FTY720 potently inhibits regulatory T cell proliferation in vitro and in vivo; J. Immunol., **183** 3751
- 3) Awojoodu et al. (2013), Sphingosine 1-phosphate receptor 3 regulates recruitment of anti-inflammatory monocytes to microvessels during implant arteriogenesis; Proc. Natl. Acad. Sci. USA, **110** 13785
- 4) Chiba (2005), FTY720, a new class of immunomodulator, inhibits lymphocyte egress from secondary lymphoid tissues and thymus by agonistic activity at sphingosine 1-phosphate receptors; Pharmacol. Ther., **108** 308
- 5) Egom *et al.* (2010), *FTY720 prevents ischemia/reperfusion injury-associated arrhythmias in an ex vivo rat heart model via activation of Pak1/Akt signaling;* J.Mol.Cell.Cardiol. **48** 406
- Liu et al. (2013), A novel immunomodulator, FTY-720, reverses existing cardiac hypertrophy and fibrosis from pressure overload by targeting NFAT (nuclear factor of activated T-cells) signaling and periostin; Circ.Heart Fail. 6 833

PHYSICAL DATA

Molecular Weight:	343.94
Molecular Formula:	C19H33NO2 · HCI
Purity:	98% by TLC
	NMR: (Conforms)
Solubility:	DMSO (up to 100 mg/ml) or Ethanol (up to 40 mg/ml, with warming)
Physical Description:	White solid
Storage and Stability:	Store as supplied desiccated at -20°C for up to 1 year from the date of purchase. Solutions in
	DMSO or ethanol may be stored at -20°C for up to 3 months.

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