

Product Data Sheet

Product Name: Leflunomide-d₄

Cat. No.: GC47552

Chemical Properties

Cas. No. 1189987-23-2

SMILES O=C(C1=C(C)ON=C1)NC2=C([2H])C([2H])=C(C(F)(F)F)C([2H])=C2[2H]

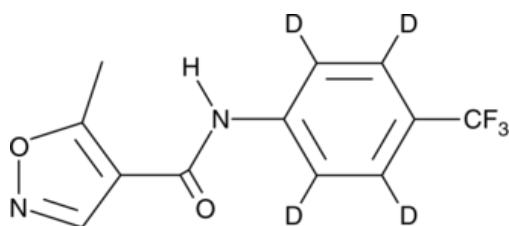
Formula C₁₂H₅D₄F₃N₂O₂ M.Wt 274.2

Solubility DMSO: soluble, Methanol: soluble Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice. All other available size: ship with RT, or blue ice upon request.

Structure



Background

Leflunomide-d₄ is intended for use as an internal standard for the quantification of leflunomide by GC- or LC-MS. Leflunomide is a synthetic isoxazol and a prodrug form of A-771726, a dihydroorotate dehydrogenase inhibitor.¹ Leflunomide inhibits *de novo* pyrimidine synthesis to regulate T lymphocyte progression through the cell cycle. It inhibits proliferation and activation of T cells when used at concentrations of 25 and 100 µM, respectively, for naïve and memory CD4⁺ T cells.² It also reduces the production of Th1 effector cells and increases differentiation of Th2 cells *in vitro* and in splenocytes isolated from KLH-immunized mice. Leflunomide (35 mg/kg per day) reduces and prevents inflammation in a proteoglycan-induced mouse model of rheumatoid arthritis.³ Formulations containing leflunomide have been used in the treatment of active rheumatoid arthritis.

1. Breedveld, F.C., and Dayer, J.-M. Leflunomide: Mode of action in the treatment of rheumatoid arthritis. *Ann. Rheum. Dis.* 59(11):841-849 (2000) 2. Dimitrova, P., Skapenko, A., Herrmann, M.L., et

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

Product Data Sheet

al. Restriction of de novo pyrimidine biosynthesis inhibits Th1 cell activation and promotes Th2 cell differentiation. *J. Immunol.* 169(6):3392-3399 (2002) 3. Glant, T.T., Mikecz, K., Bartlett, R.R., et al. Immunomodulation of proteoglycan-induced progressive polyarthritis by leflunomide. *Immunopharmacology* 23(2):105-116 (1992)

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA