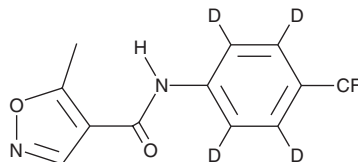


PRODUCT INFORMATION



Leflunomide-d₄ Item No. 26448

CAS Registry No.: 1189987-23-2
Formal Name: 5-methyl-N-(4-(trifluoromethyl)phenyl-2,3,5,6-d₄)isoxazole-4-carboxamide
MF: C₁₂H₅D₄F₃N₂O₂
FW: 274.2
Chemical Purity: ≥98% (Leflunomide)
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₄); ≤1% d₀
Supplied as: A 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

Leflunomide-d₄ is intended for use as an internal standard for the quantification of leflunomide (Item No. 14860) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated *versus* unlabeled).

Leflunomide-d₄ is supplied as a solid. A stock solution may be made by dissolving the leflunomide-d₄ in the solvent of choice, which should be purged with an inert gas. Leflunomide-d₄ is soluble in methanol and DMSO.

Description

Leflunomide is a synthetic isoxazol and a prodrug form of A-771726 (Item No. 14404), 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.

References

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 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).

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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