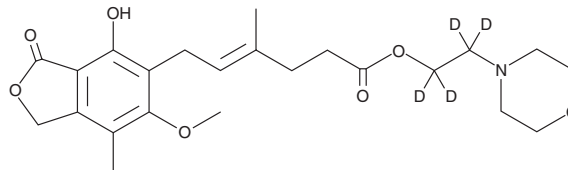


PRODUCT INFORMATION



Mycophenolate Mofetil-d₄ Item No. 25281

CAS Registry No.: 1132748-21-0
Formal Name: 6-(1,3-dihydro-4-hydroxy-6-methoxy-7-methyl-3-oxo-5-isobenzofuranyl)-4-methyl-4E-hexenoic acid, 2-(4-morpholinyl)ethyl-1,1,2,2-d₄ ester
Synonym: MMF-d₄
MF: C₂₃H₂₇D₄NO₇
FW: 437.5
Chemical Purity: ≥98% (Mycophenolate Mofetil)
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

Mycophenolate mofetil-d₄ is intended for use as an internal standard for the quantification of mycophenolate mofetil (Item No. 13988) 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).

Mycophenolate mofetil-d₄ is supplied as a solid. A stock solution may be made by dissolving the mycophenolate mofetil-d₄ in the solvent of choice, which should be purged with an inert gas. Mycophenolate mofetil-d₄ is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of mycophenolate mofetil-d₄ in these solvents is approximately 1.4, 10, and 14 mg/ml, respectively.

Description

Mycophenolate mofetil is a prodrug form of mycophenolic acid (Item No. 21716).¹⁻³ It is converted to mycophenolic acid *via* carboxylesterase 1 (CES1) and CES2.⁴ Mycophenolate mofetil (1 and 10 µg/ml) inhibits thymidine incorporation in primary rat aortic smooth muscle cells.⁵ *In vivo*, mycophenolate mofetil (12.5 mg/kg) increases the duration of transplant motor activity in a rabbit model of retroperitoneal heterotopic heart transplantation.¹ It eliminates formation of microbleeds and hemorrhages in the cerebrum of stroke-prone spontaneously hypertensive rats when administered at a dose of 25 mg/kg.² Mycophenolate mofetil (60 mg/kg) also lowers mean arterial pressure (MAP) and reduces urinary albumin excretion and glomerulosclerosis, markers of renal damage, in a mouse model of systemic lupus erythematosus (SLE).³

References

1. Aygün, F., Efe, D., and Durgut, K. *Cardiovasc. J. Afr.* **26(3)**, 104-108 (2015).
2. Dhande, I.S., Zhu, Y., Braun, M.C., *et al. Physiol. Genomics* **49(3)**, 132-140 (2017).
3. Taylor, E.B. and Ryan, M.J. *J. Am. Heart Assoc.* **6(3)**, e005394 (2017).
4. Fujiyama, N., Miura, M., Kato, S., *et al. Drug Metab. Dispos.* **38(12)**, 2210-2217 (2010).
5. Räisänen-Sokolowski, A., Vuoristo, P., Myllärniemi, M., *et al. Transpl. Immunol.* **3(4)**, 342-351 (1995).

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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CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM