

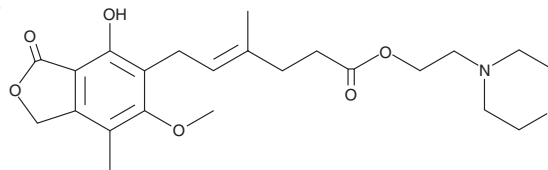
# PRODUCT INFORMATION



## Mycophenolate Mofetil

Item No. 13988

**CAS Registry No.:** 128794-94-5  
**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 ester  
**Synonyms:** MMF, RS 61443  
**MF:** C<sub>23</sub>H<sub>31</sub>NO<sub>7</sub>  
**FW:** 433.5  
**Purity:** ≥95%  
**UV/Vis.:** λ<sub>max</sub>: 215, 249, 305 nm  
**Supplied as:** A crystalline 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 is supplied as a crystalline solid. A stock solution may be made by dissolving the mycophenolate mofetil in the solvent of choice, which should be purged with an inert gas. Mycophenolate mofetil is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of mycophenolate mofetil in these solvents is approximately 1.4, 10, and 14 mg/ml, respectively.

Mycophenolate mofetil is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, mycophenolate mofetil should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Mycophenolate mofetil has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

Mycophenolate mofetil is a prodrug form of mycophenolic acid (Item No. 21716).<sup>1-3</sup> It is converted to mycophenolic acid via carboxylesterase 1 (CES1) and CES2.<sup>4</sup> Mycophenolate mofetil (1 and 10 µg/ml) inhibits thymidine incorporation in primary rat aortic smooth muscle cells.<sup>5</sup> *In vivo*, mycophenolate mofetil (12.5 mg/kg) increases the duration of transplant motor activity in a rabbit model of retroperitoneal heterotopic heart transplantation.<sup>1</sup> 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.<sup>2</sup> 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).<sup>3</sup>

### References

1. Aygün, F., Efe, D., and Durgut, K. Comparison of MMF with prednisone in terms of rejection and duration of activity of transplant in rabbits that underwent retroperitoneal heterotopic heart transplantation. *Cardiovasc. J. Afr.* **26(3)**, 104-108 (2015).
2. Dhande, I.S., Zhu, Y., Braun, M.C., et al. Mycophenolate mofetil prevents cerebrovascular injury in stroke-prone spontaneously hypertensive rats. *Physiol. Genomics* **49(3)**, 132-140 (2017).
3. Taylor, E.B. and Ryan, M.J. Immunosuppression with mycophenolate mofetil attenuates hypertension in an experimental model of autoimmune disease. *J. Am. Heart Assoc.* **6(3)**, e005394 (2017).
4. Fujiyama, N., Miura, M., Kato, S., et al. Involvement of carboxylesterase 1 and 2 in the hydrolysis of mycophenolate mofetil. *Drug Metab. Dispos.* **38(12)**, 2210-2217 (2010).
5. Räisänen-Sokolowski, A., Vuoristo, P., Myllärniemi, M., et al. Mycophenolate mofetil (MMF, RS-61443) inhibits inflammation and smooth muscle cell proliferation in rat aortic allografts. *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.

#### WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 12/01/2022

#### 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