

Catalog # 10-2086 Mycophenolate mofetil

CAS# 128794-94-5

6-(1,3-Dihydro-4-hydroxy-6-methoxy-7-methyl-3-oxo-5-isobenzofuranyl)-4-methyl-4-hexenoic acid 2-(4-morpholinyl)ethyl ester

Lot # X101011



A mycophenolic acid prodrug. Immunosuppressive agent useful in prevention of organ allograft rejection.¹ Is metabolized to mycophenolic acid *in vivo* which acts by inhibiting the biosynthesis of guanine nucleotides via inhibition of inosine 5'-monophosphate dehydrogenase, suppressing the production of proinflammatory cytokines, nitric oxide and LDH in macrophages.^{2,3} IL-2-dependent T cell proliferation is also inhibited.⁴ Inhibits microglial and astrocytic activation reducing cell death after neuronal injury.⁵ Active *in vivo*.

- 1) Allison & Eugui (1996), Purine metabolism and immunosuppressive effects of mycophenolate mofetil (MMF); Clin. Transplant., 10 77
- 2) Jonsson et al. (2002), Mycophenolic acid inhibits inosine 5'-monophosphate dehydrogenase and suppresses production of pro-inflammatory cytokines, nitric oxide, and LDH in macrophages; Cell. Immunol., **216** 93
- 3) Allison et al. (1993), Mechanisms of action of mycophenolic acid; Ann. NY Acad. Sci., 696 63
- 4) Quemeneur et al. (2002), Mycophenolic acid inhibits IL-2-dependent T cell proliferation, but not IL-2-dependent survival and sensitization to apoptosis; J. Immunol., **169** 2747
- 5) Ebrahimi et al. (2012) Time dependent neuroprotection of mycophenolate mofetil: effects on temporal dynamics in glial proliferation, apoptosis, and scar formation; J. Neuroinflammation, **9** 89

PHYSICAL DATA

Molecular Weight:	433.51
Molecular Formula:	C ₂₃ H ₃₁ NO ₇
Purity:	98% by TLC
	NMR: (Conforms)
Solubility:	DMSO (up to 40 mg/ml) or Ethanol (up to 4 mg/ml)
Physical Description:	White solid
Storage and Stability:	Store as supplied desiccated at room temperature for up to 2 years from the date of purchase.
	Solutions in DMSO or ethanol may be stored at -20° C for up to 1 month.

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