



**Orders:** 877-616-CELL (2355)  
orders@cellsignal.com

**Support:** 877-678-TECH (8324)

**Web:** info@cellsignal.com  
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

# Store at RT #24718 Mycophenolic Acid

50 mg

**For Research Use Only. Not for Use in Diagnostic Procedures.**

## Background

Mycophenolic Acid, also referred to as MPA, is a potent inhibitor of the enzyme inosine 5'-monophosphate dehydrogenase (IMPDH), a key molecule in the biosynthesis of guanine nucleotides. This inhibition leads to suppression of pro-inflammatory cytokines, nitric oxide, and LDH in macrophages (1). Mycophenolic Acid has been shown to inhibit the reproduction of the Middle East respiratory syndrome coronavirus (MERS-CoV) with an  $IC_{50}$  of 2.87  $\mu$ M (2). Clinically, Mycophenolic Acid has been used as an anti-rejection immunosuppressant medication for kidney and liver transplant patients (3,4).

## Molecular Formula

$C_{17}H_{20}O_6$

## Molecular Weight

320.3 g/mol

## Purity

>98%

## CAS

24280-93-1

## Solubility

Soluble in DMSO at 30 mg/ml or ethanol at 30 mg/ml.

## Storage

Store lyophilized at room temperature, desiccated. In lyophilized form, the chemical is stable for 24 months. Once in solution, store at -20°C and use within 3 months to prevent loss of potency. *Aliquot to avoid multiple freeze/thaw cycles.*

## Directions for Use

Mycophenolic Acid is supplied as a lyophilized powder. For a 15 mM stock, reconstitute 5 mg of powder in 1.04 ml of DMSO. Working concentrations and length of treatment can vary depending on the desired effect.

## Background References

1. Jonsson, C.A. and Carlsten, H. *Cell Immunol* 216, 93-101.
2. Hart, B.J. et al. (2014) *J Gen Virol* 95, 571-7.
3. Chen, H. and Chen, B. (2014) *World J Gastroenterol* 20, 10715-28.
4. Zwart, T.C. et al. (2018) *Br J Clin Pharmacol* 84, 2889-902.

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