

DESCRIPTION

Species Reactivity	Human/Mouse/Rat
Specificity	Detects human Inosine 5'-Monophosphate Dehydrogenase 2/IMPDH2 in direct ELISAs. Detects human, mouse and rat IMPDH2 in Western blots.
Source	Monoclonal Mouse IgG ₁ Clone # 911425
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>S. frugiperda</i> insect ovarian cell line Sf 21-derived recombinant human Inosine 5'-Monophosphate Dehydrogenase 2/IMPDH2 Met1-Phe514 Accession # P12268
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

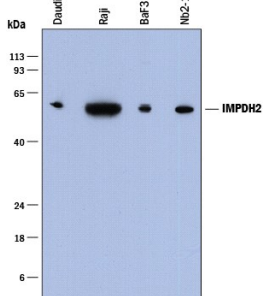
APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Western Blot	0.5 µg/mL	See Below
Simple Western	5 µg/mL	See Below

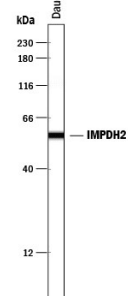
DATA

Western Blot




Detection of Human, Mouse, and Rat Inosine 5'-Monophosphate Dehydrogenase 2/IMPDH2 by Western Blot. Western blot shows lysates of Daudi human Burkitt's lymphoma cell line, Raji human Burkitt's lymphoma cell line, BaF3 mouse pro-B cell line, and Nb2-11 rat lymphoma cell line. PVDF membrane was probed with 0.5 µg/mL of Mouse Anti-Human/Mouse/Rat Inosine 5'-Monophosphate Dehydrogenase 2/IMPDH2 Monoclonal Antibody (Catalog # MAB8349) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF018). A specific band was detected for Inosine 5'-Monophosphate Dehydrogenase 2/IMPDH2 at approximately 56 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Simple Western



Detection of Human Inosine 5'-Monophosphate Dehydrogenase 2/IMPDH2 by Simple Western™. Simple Western lane view shows lysates of Daudi human Burkitt's lymphoma cell line, loaded at 0.5 mg/mL. A specific band was detected for Inosine 5'-Monophosphate Dehydrogenase 2/IMPDH2 at approximately 57 kDa (as indicated) using 5 µg/mL of Mouse Anti-Human/Mouse/Rat Inosine 5'-Monophosphate Dehydrogenase 2/IMPDH2 Monoclonal Antibody (Catalog # MAB8349). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.



PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

IMP Dehydrogenase 2 (IMPDH2), also known as type II Inosine 5'-Monophosphate Dehydrogenase and IMPD2, is the rate-limiting enzyme in de novo guanine nucleotide biosynthesis. Along with closely related enzyme IMPDH1, IMPDH2 catalyzes the conversion of Inosine 5'-Phosphate (IMP) to Xanthosine 5'-Phosphate (XMP), and is responsible for maintaining the cellular guanine deoxy- and ribonucleotide pools required for DNA and RNA synthesis, respectively. IMPDH2 regulation is associated with cellular proliferation, transformation and differentiation, and its levels are selectively upregulated in neoplastic and replicating cells. Therefore, it has been evaluated as a target for anti-tumor, anti-infective and immunosuppressive drugs. Human IMPDH2 is a 56 kDa protein that shares 84% amino acid (aa) identity with human IMPDH1, and 98% aa identity with mouse and rat IMPDH2.