Human Inosine-5′-Monophosphate Dehydrogenase II, human recombinant

CATALOG NO: P1131-20 20 µg
P1131-100 100 µg

ALTERNATE NAMES: IMP dehydrogenase type II, IMPDH II, IMPD2, IMPDH

SOURCE: *E.coli*

PURITY: > 90% by SDS-PAGE

MOL. WEIGHT: This protein is fused with a HAT tag at the N-terminus and the protein has a calculated MW of 57 kDa.

FORM: Liquid

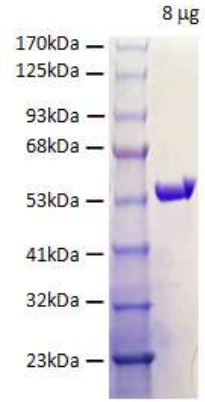
FORMULATION: 20 mM Tris, pH 8.0, 150 mM NaCl, 2 mM DTT, 2 mM EDTA and 20% glycerol

STORAGE CONDITIONS: Store at -20°C in working aliquots and use within 6 months. Avoid repeated freeze-thaw cycles.

DESCRIPTION: Inosine monophosphate dehydrogenase, IMPDH, (E.C. 1.1.1.205) is the rate-limiting enzyme in de novo guanine nucleotide biosynthesis and it is essential for lymphocyte proliferation. IMPDH oxidizes inosine 5'-monophosphate (IMP) to xanthine 5'-monophosphate (XMP) using NAD as a cofactor. It plays a critical role in cell growth and in the malignancy of some tumors. IMPDH II is the predominant isoform of IMPDH and is specifically linked to a wide range of cancers and lymphocyte proliferation. BioVision's active human IMPDH II is suitable for functional assays, high-throughput screening and preclinical studies in drug discovery.

SPECIFIC ACTIVITY: ≥ 0.04 U/mg. One unit of enzyme converts 1 µmole of IMP into XMP at 37ºC and pH 8.

A



B

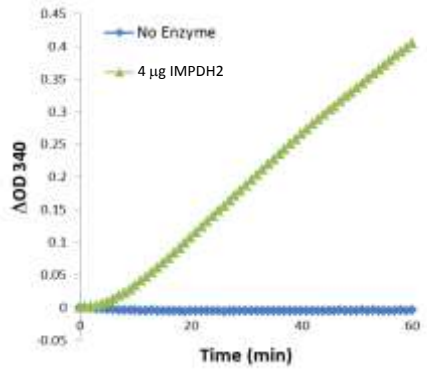


Fig A. SDS-PAGE (4-20%) of Recombinant IMPDH II: Recombinant Protein loaded under reducing conditions and stained with Coomassie Blue. The protein shows a predicted MW of ~ 57 kDa

Fig B. Activity plot of IMPDH II converting IMP to XMP. Specific activity of IMPDH II is ≥0.04 U/mg. IMPDH II reacts with 1 mM of IMP at pH 8 and 37ºC. NADH production rate was detected at 340 nm.

RELATED PRODUCTS:

- HPRT1, human recombinant **(Cat. No. P1092-10, -50)**
- 2'-Deoxy-6-thioguanosine **(Cat. No. 2828-25)**

FOR RESEARCH USE ONLY! Not to be used on humans.