Human ADP-Sugar Pyrophosphatase/NUDT5 Antibody

Monoclonal Mouse IgG_{2B} Clone # 739044

Catalog Number: MAB6414

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human ADP-Sugar Pyrophosphatase/NUDT5 in direct ELISAs.
Source	Monoclonal Mouse IgG_{2B} Clone # 739044
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	*E. coli*-derived recombinant human ADP-Sugar Pyrophosphatase/NUDT5 Glu2-Phe219 Accession # Q9UKK9
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.

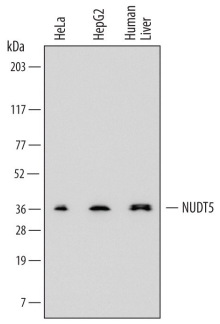
APPLICATIONS

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	0.2 µg/mL	See Below

DATA

Western Blot



Detection of Human ADP-Sugar Pyrophosphatase/NUDT5 by Western Blot. Western blot shows lysates of HeLa human cervical epithelial carcinoma cell line, HepG2 human hepatocellular carcinoma cell line, and human liver tissue. PVDF membrane was probed with 0.2 µg/mL of Mouse Anti-Human ADP-Sugar Pyrophosphatase/NUDT5 Monoclonal Antibody (Catalog # MAB6414) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF007). A specific band was detected for ADP-Sugar Pyrophosphatase/NUDT5 at approximately 36 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.5 mg/mL.
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.** ● 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

ADP-Sugar Pyrophosphatase (NUDT5) is a member of the nudix superfamily of enzymes. Members of this family are pyrophosphohydrolases that act upon substrates with the general structure of a nucleoside (Nu) diphosphate (di) linked to another moiety, X (NDP-X) to yield NMP plus P-X (1). Human NUDT5 is a homodimeric enzyme present in the cytosol of most cell types (2). Glu166 and three magnesium ions are important for stabilizing the transition state during the hydrolysis of ADPR (3). NUDT5 has been suggested to play a role in regulating the intracellular levels of ADPR by NO activation through ADP-ribosylation at cysteine residues of the enzyme in macrophages (4). It also may play defensive role against the mutagenesis induced by oxidized deoxyribonucleosides (5, 6).

References:

1. McLennan, A.G. (2006) Cell Mol. Life Sci. **63**:123.
2. Zha, M. *et al.* (2006) J. Mol. Biol. **364**:1021.
3. Zha, M. *et al.* (2008) J. Mol. Biol. **379**:568.
4. Yu, H.N. *et al.* (2007) Biochem. Biophys. Res. Comm. **354**:764.
5. Hori, M. *et al.* (2010) Free Radic. Biol. Med. **48**:1197.
6. Kamiya, H. *et al.* (2009) DNA Repair (Amst) **8**:1250.

bio-techne
bio-techne.com
Global info@bio-techne.com techsupport@bio-techne.com
North America TEL 800 343 7475 Europe | Middle East | Africa TEL +44 (0)1235 529449
China info.cn@bio-techne.com TEL +86 (21) 52380373
Rest of World bio-techne.com/find-us/distributors TEL +1 612 379 2956