

Human PNPO antibody

Catalog Number: ATGA0213

PRODUCT INFORMATION

Catalog number

ATGA0213

Clone No.

AT2C7

Product type

Monoclonal Antibody

UnitProt No.

Q9NVS9

NCBI Accession No.

NP_060599

Alternative Names

Pyridoxine-5-phosphate oxidase, FLJ10535, PDXPO

PRODUCT SPECIFICATION

Antibody Host

Mouse

Reacts With

Human

Concentration

1mg/ml (determined by BCA assay)

Formulation

Liquid in. Phosphate-Buffered Saline (pH 7.4) with 0.02% Sodium Azide, 10% glycerol

Immunogen

Recombinant human PNPO (57-261aa) purified from E. coli

Isotype

IgG1 kappa

Purification Note

By protein-G affinity chromatography

Application

ELISA, WB, ICC/IF, IHC, FACS

Usage

The antibody has been tested by ELISA, Western blot, ICC/IF, FACS and IHC analysis to assure specificity and reactivity. Since application varies, however, each investigation should be titrated by the reagent to obtain optimal results.

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Storage

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

BACKGROUND

Description

PNPO (pyridoxamine 5'-phosphate oxidase) is a 261 amino acid protein belonging to the pyridoxamine 5'-phosphate oxidase family. It is the rate-limiting enzyme in vitamin B6 synthesis. Vitamin B6 (Pyridoxal 5-prime-phosphate or PLP) is vital for normal cellular function, and some cancer cells have notable differences in vitamin B6 metabolism compared to their normal counterparts. Vitamin B6 is a required co-factor for enzymes involved in both homocysteine metabolism and synthesis of neurotransmitters such as catecholamine.

General References

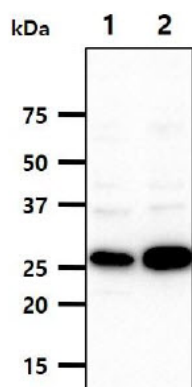
Ngo EO, et al. (Jun 1998). Biochemistry 37 (21): 7741-8.

Mills PB, Surtees RA, et al. (2005). Hum. Mol. Genet. 14 (8): 1077-86.

Kang JH, et al. (Jun 2004). Eur J Biochem 271 (12): 2452-61.

DATA

Western blot analysis (WB)

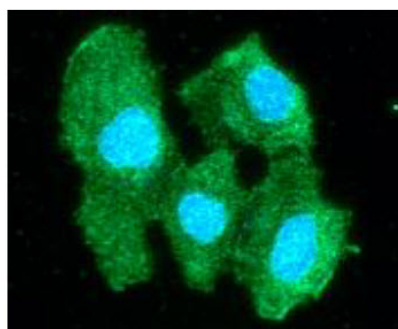


The Cell lysates (40ug) were resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-human PNPO antibody (1:1000). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system.

Lane 1.: A549 cell lysate

Lane 2.: HepG2 cell lysate

Immunocytochemistry/Immunofluorescence (ICC/IF)

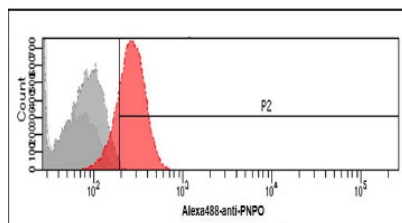


ICC/IF analysis of PNPO in Hep3B cells. The cell was stained with ATGA0213 (1:100). The secondary antibody (green) was used Alexa Fluor 488. DAPI was stained the cell nucleus (blue).

Flow cytometry (FACS)

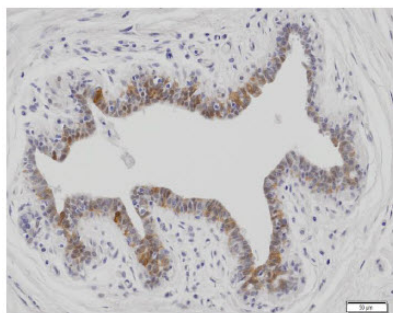
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Flow cytometry analysis of PNPO in Jurkat cells. The cell was stained with ATGA0213 at 2-5ug for 1×10^6 cells (red). A Goat anti mouse IgG (Alexa fluor 488) was used as the secondary antibody. Mouse monoclonal IgG was used as the isotype control (dark gray), cells without incubation with primary and secondary antibody was used as the negative control (light gray).

Immunohistochemistry (IHC)



Paraffin embedded sections of human breast cancer tissue were incubated with anti-human PNPO (1:150) for 2 hours at room temperature. Antigen retrieval was performed in 0.1M sodium citrate buffer and detected using Diaminobenzidine(DAB)