

Human NUDT1/MTH1 antibody

Catalog Number: ATGA0375

PRODUCT INFORMATION

Catalog number

ATGA0375

Clone No.

AT3B3

Product type

Monoclonal Antibody

UnitProt No.

P36639

NCBI Accession No.

NP_945191

Alternative Names

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 NUDT1 (1-156aa) purified from E. coli.

Isotype

IgG1 kappa

Purification Note

By protein-A affinity chromatography

Application

ELISA, WB, ICC/IF, FACS

Usage

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

Storage

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

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repeated freezing and thawing cycles.

BACKGROUND

Description

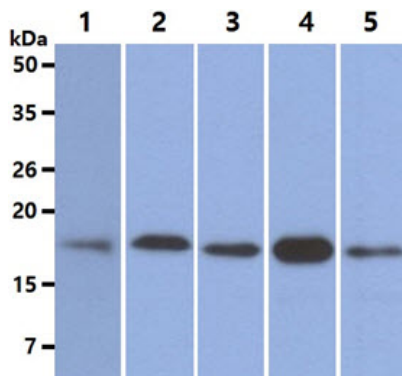
NUDT1, also known as MTH1 is a 179 amino acid cytoplasmic protein that is a member of the nudix hydrolase family. Highly expressed in testis, thymus and proliferating blood lymphocytes, NUDT1 functions as an antimutagenic that hydrolyzes oxidized purine nucleoside triphosphates to their corresponding monophosphates. Through its ability to enzymatically hydrolyze ATP and GTP to AMP and GMP, respectively, NUDT1 prevents misincorporation of GTP into DNA, thus preventing A:T to C:G transversions.

General References

Satoh J., et al. (2000) Eur J Neurol. 7(6): 673-677.
Choi KM., et al. (2015) FEBS Lett. 589(3): 349-357.

DATA

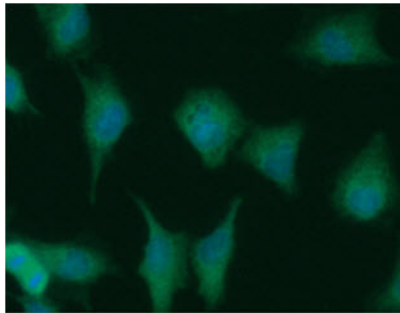
Western blot analysis (WB)



The cell lysates (40ug) were resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-human NUDT1 antibody (1:500). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system.

Lane 1.: K562 cell lysate
Lane 2.: SW480 cell lysate
Lane 3.: THP-1 cell lysate
Lane 4.: Jurkat cell lysate
Lane 5.: A549 cell lysate

Immunocytochemistry/Immunofluorescence (ICC/IF)

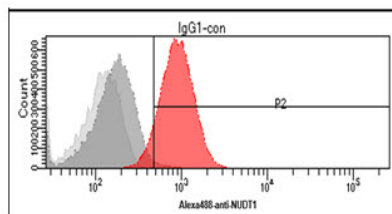


ICC/IF analysis of NUDT1 in A549 cells. The cell was stained with ATGA0375 (1:100). The secondary antibody (green) was used Alexa Fluor 488. DAPI was stained the cell nucleus (blue).

Flow cytometry (FACS)

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Flow cytometry analysis of NUDT1 in Jurkat cells. The cell was stained with ATGA0375 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).