Human 6-phosphogluconate Dehydrogenase/PGD antibody

Catalog Number: ATGA0419

PRODUCT INFORMATION

Catalog number
ATGA0419

Clone No.
AT46B3

Product type
Monoclonal Antibody

UnitProt No.
P52209

NCBI Accession No.
NP_002622

Alternative Names
6-phosphogluconate dehydrogenase, Decarboxylating, PGDH, Phosphogluconate dehydrogenase, 6PGD

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 PGD (1-483aa) purified from E. coli

Isotype
IgG2b kappa

Purification Note
By protein-A affinity chromatography

Application
ELISA, WB, ICC/IF

Usage
The antibody has been tested by ELISA, Western blot analysis, Flow cytometry and ICC/IF 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

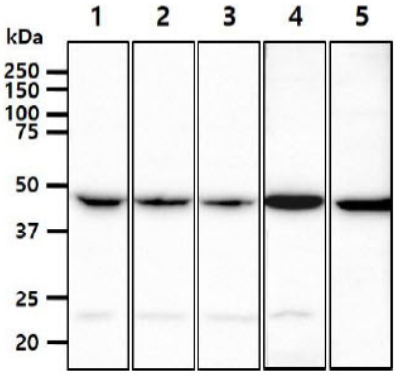
PGD (Phosphogluconate dehydrogenas), also known as 6PGD, is a 483 amino acid enzyme that is involved in the pentose phosphate shunt. Pentose is required for nucleic acid biosynthesis and the pentose phosphate cycle is a major source of NADPH. PGD deficiency increases the level of erythrocyte pyruvate kinase (PK) activity and reduces glutathione synthetase (GSH), resulting in hemolysis. Defects in PGD are generally asymptomatic and are inherited in an autosomal dominant fashion.

General References

Le TD., et al. (2010) Proc Natl Acad Sci U S A. 107(7): 3198-203.
Tagen M., et al. (2009) J Immunol. 183(10): 6313-9

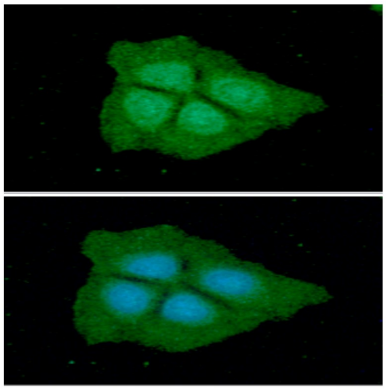
DATA

Western blot analysis (WB)



The cell lysates (40ug) were resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-human PGD antibody (1:1000). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system.
Lane 1.: HeLa cell lysate
Lane 2.: MCF7 cell lysate
Lane 3.: 293T cell lysate
Lane 4.: A549 cell lysate
Lane 5.: Jurkat cell lysate

Immunocytochemistry/Immunofluorescence (ICC/IF)



ICC/IF analysis of 6-phosphogluconate dehydrogenase/PGD1 in Hep3B cells. The cell was stained with ATGA0419 (1:100). The secondary antibody (green) was used Alexa Fluor 488. DAPI was stained the cell nucleus (blue).