# **PRODUCT INFORMATION**

Catalog number ATGA0532

Clone No. AT2F6

**Product type** Monoclonal antibody

**UnitProt No.** P11413

**NCBI Accession No.** NP\_001035810.1

Alternative Names glucose-6-phosphate 1-dehydrogenase, G6PD1, G6PDH

Additional Information This product was produced from tissue culture supernatant.

# **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 G6PD (35-506aa) 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 and ICC/IF 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 repeated freezing and thawing cycles.

# BACKGROUND

### Description

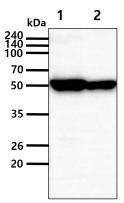
Glucose-6-phosphate dehydrogenase (G6PD) is the rate-limiting enzyme of the pentose phosphate pathway, ametabolic pathway that supplies reducing energy to cells by maintaining the level of NADPH. G6PD convertsglucose-6-phosphate into 6-phosphoglucono-delta-lactone and simultaneously produce NADPH. The NADPH inturn maintains the level of glutathione in these cells that helps protect the red blood cells against oxidativedamage. G6PD deficiency cause acute hemolytic anemia.

#### **General References**

Huang Y., et al, (2008) Mol Genet Metab. 93(1):44-53 Zimny A., et al. (2003) Pol Arch Med Wewn. 110(5):1327-33

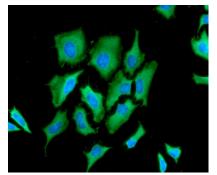
# DATA

## Western blot analysis (WB)



The cell lysates(40ug) were resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-human G6PD antibody (1:1000). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system. Lane 1.: MCF7 cell lysate Lane 2.: HeLa cell lysate

## Immunocytochemistry/Immunofluorescence (ICC/IF)



ICC/IF analysis of G6PD in HeLa cells. The cell was stained with ATGA0532 (1:100). The secondary antibody (green) was used Alexa Fluor 488. DAPI was stained the cell nucleus (blue).

NKMAX