Human Glutathione Reductase/GSR antibody

Catalog Number: ATGA0323

PRODUCT INFORMATION

Catalog number
ATGA0323

Clone No.
AT11D10

Product type
Monoclonal Antibody

UnitProt No.
P00390

NCBI Accession No.
NP_000628

Alternative Names
Glutathione reductase, GLuR, GRD1

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 GSR (43-522aa) 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.

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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

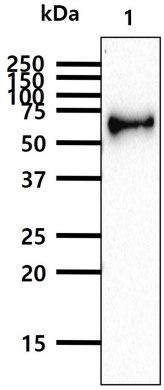
Glutathione reductase (GR) also known as glutathione-disulfide reductase (GSR) is an enzyme that in humans is encoded by the GSR gene. Glutathione reductase catalyzes the reduction of glutathione disulfide (GSSG) to the sulfhydryl form glutathione (GSH), which is a critical molecule in resisting oxidative stress and maintaining the reducing environment of the cell. Glutathione reductase functions as dimeric disulfide oxidoreductase and utilizes an FAD prosthetic group and NADPH to reduce one mole of GSSG to two moles of GSH.

General References

Deponte M. (2013) Biochim Biophys Acta 1830(5): 3217-3266
Meister A. (1988) J Biol Chem 263(33): 17205-17208
Mannervik B. (1987) Biochem Soc Trans 15(4): 717-718

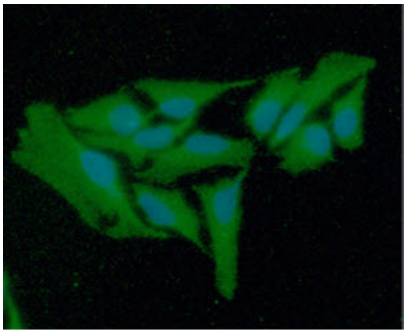
DATA

Western blot analysis (WB)



The recombinant protein (50ng) was resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-human GSR antibody (1:1000). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system. Lane 1.: Recombinant human GSR protein

Immunocytochemistry/Immunofluorescence (ICC/IF)



ICC/IF analysis of GSR in HeLa cells line, stained with DAPI (Blue) for nucleus staining and monoclonal anti-human GSR antibody (1:100) with goat anti-mouse IgG-Alexa fluor 488 conjugate (Green).

Flow cytometry (FACS)

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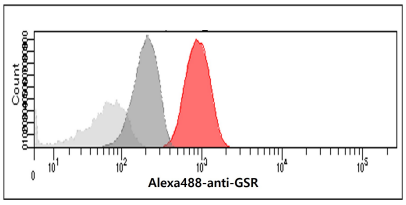

Flow cytometry analysis of GSR in Jurkat cells. The cell was stained with ATGA0323 at 2-5ug for 1x10^6cells (red). A Goat anti mouse IgG (Alexa fluor 488) was used as the secondary antibody. Mouse monoclonal IgG was used as the isotype control (dark gray), cells without incubation with primary and secondary antibody was used as the negative control (light gray).