Human GRP94/HSP90B1 antibody

Catalog Number: ATGA0348

PRODUCT INFORMATION

Catalog number
ATGA0348

Clone No.
AT94B9

Product type
Monoclonal Antibody

UnitProt No.
P14625

NCBI Accession No.
NP_003290

Alternative Names
Tumor rejection antigen GP96, Tumor rejection antigen 1, TRA1, Stress inducible tumor rejection antigen GP96, HSP90B1, Heat shock protein 90 kDa beta member 1, GRP94, GRP 9, GP96 homolog, GP96, Glucose regulated protein 94kDa, Endothelial cell (HBMEC) glycoprotein, Endoplasmin, ECGP, 94 kDa glucose-regulated protein

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 GRP94 (22-803aa) purified from E.coli

Isotype
IgG2b 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

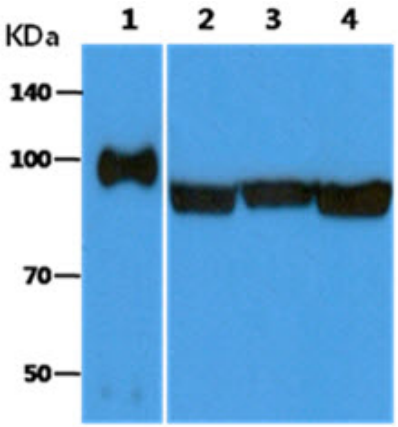
GRP94, also known as Heat shock protein 90kDa beta, member 1 (HSP90B1), is an abundant resident endoplasmic reticulum (ER) lumenal stress protein which together with cytosolic Hsp90 belongs to the Hsp90 family of molecular chaperones. It plays an important role in maintaining protein homeostasis in the secretory pathway. Also, GRP94 can function in the intracellular trafficking of peptides from the extracellular space to the MHC class I antigen processing pathway of antigen presentation cells.

General References

Randow F., et al. (2001) Nat Cell Biol. 3(10): 231.
Li Z., et al. (2002) Front Biosci. 7: 731-751.

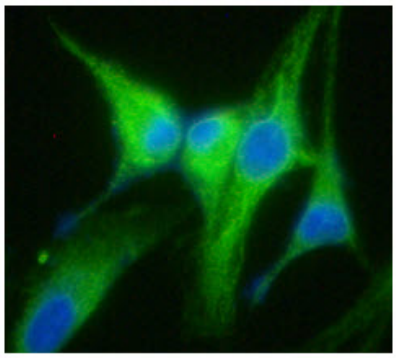
DATA

Western blot analysis (WB)



The Recombinant protein (25ng) and Cell lysates (40ug) were resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-human GRP94 antibody (1:3000). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system.
Lane 1.: Recombinant Human GRP94
Lane 2.: HeLa cell lysate
Lane 3.: Jurkat cell lysate
Lane 4.: HepG2 cell lysate

Immunocytochemistry/Immunofluorescence (ICC/IF)



ICC/IF analysis of GRP94 in U87MG cells. The cell was stained with ATGA0348 (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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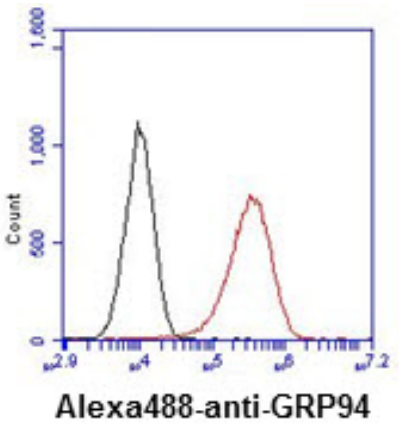

Flow cytometry analysis of GRP94 in U87MG cell line, staining at 2-5ug for 1x10^6cells (red line). The secondary antibody used goat anti-mouse IgG Alexa fluor 488 conjugate. Isotype control antibody was mouse IgG (black line).