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Datasheet for ABIN2481969

anti-GRP94 antibody (C-Term) (HRP)

3 Images

Overview

| | |
|----------------------|---|
| Quantity: | 100 µg |
| Target: | GRP94 (HSP90B1) |
| Binding Specificity: | C-Term |
| Reactivity: | Mouse |
| Host: | Rabbit |
| Clonality: | Polyclonal |
| Conjugate: | This GRP94 antibody is conjugated to HRP |
| Application: | Western Blotting (WB), Immunohistochemistry (IHC), Immunofluorescence (IF), Immunoprecipitation (IP), Immunocytochemistry (ICC) |

Product Details

| | |
|-------------------|--|
| Immunogen: | Synthetic peptide corresponding to the sequence near the C-terminus of mouse GRP94 |
| Specificity: | Detects ~94 kDa. |
| Cross-Reactivity: | Cow, Human, Mouse, Rat |
| Purification: | Peptide Affinity Purified |

Target Details

| | |
|-------------------|--|
| Target: | GRP94 (HSP90B1) |
| Alternative Name: | GRP94 (HSP90B1 Products) |
| Background: | Grp94 (glucose regulated protein 94, gp96) is a constitutively expressed endoplasmic reticulum |

Target Details

(ER) luminal protein that is up-regulated in response to cellular stress such as heat shock, oxidative stress or glucose depletion. Grp94 is thought to play a role in protein translocation to the ER, in their subsequent folding and assembly, and in regulating protein secretion (1). Grp94 also plays a role in antigen presentation by accessing the endogenous pathway and eliciting specific CTL responses to chaperone bound peptides via MHC class I pathway (2). Grp94 is a member of the HSP90 family of stress proteins and shares sequence homology with its cytosolic equivalent, HSP90 (3). Both HSP90 and Grp94 are calcium binding proteins (4). Despite sharing 50 % sequence homology over its N domains and complete conservation in its ligand binding domains with HSP90, Grp94 and HSP90 differ in their interactions with regulatory ligands as Grp94 has weak ATP binding and hydrolysis activity (5). Grp94 exists as a homodimer and the two subunits interact at two distinct intermolecular sites, C terminal dimerization domains and the N-terminal interacts with the middle domain of opposing subunits. (6). Grp94 contains a carboxy terminal KDEL (Lys-Asp-Glu-Leu) sequence which is believed to aid in its retention in the ER (7).

| | |
|-----------------|--|
| Gene ID: | 22027 |
| NCBI Accession: | NP_035761 |
| UniProt: | P08113 |
| Pathways: | Thyroid Hormone Synthesis , Activation of Innate immune Response , ER-Nucleus Signaling , Toll-Like Receptors Cascades |

Application Details

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|--------------------|---|
| Application Notes: | <ul style="list-style-type: none">• WB (1:1000)• ICC/IF (1:120)• IP (1:80)• optimal dilutions for assays should be determined by the user. |
| Comment: | 1 µg/ml of ABIN2481969 was sufficient for detection of Grp94 in 20 µg of Hela lysate by colorimetric immunoblot analysis using goat anti-rabbit IgG:HRP as the secondary antibody. |
| Restrictions: | For Research Use only |

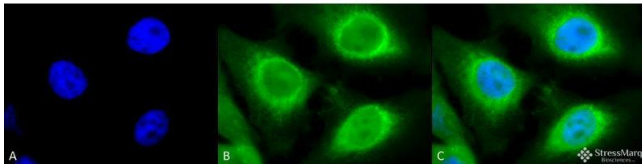
Handling

| | |
|----------------|---------|
| Format: | Liquid |
| Concentration: | 1 mg/mL |

Handling

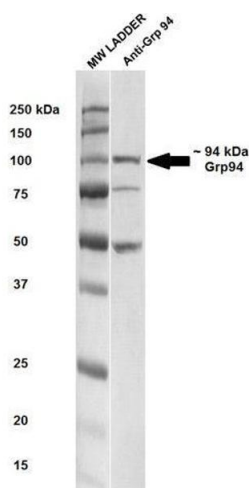
| | |
|--------------------|--|
| Buffer: | PBS pH 7.4, 50 % glycerol, 0.09 % sodium azide, Storage buffer may change when conjugated |
| Preservative: | Sodium azide |
| Precaution of Use: | This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only. |
| Storage: | 4 °C |
| Storage Comment: | Conjugated antibodies should be stored at 4°C |

Images



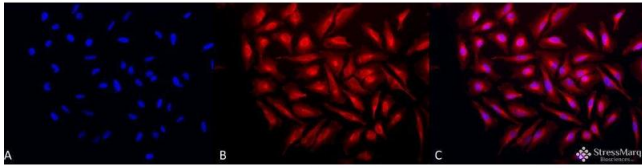
Immunofluorescence (fixed cells)

Image 1. Immunocytochemistry/Immunofluorescence analysis using Rabbit Anti-GRP94 Polyclonal Antibody . Tissue: Heat Shocked HeLa Cells. Species: Human. Fixation: 2% Formaldehyde for 20 min at RT. Primary Antibody: Rabbit Anti-GRP94 Polyclonal Antibody at 1:120 for 12 hours at 4°C. Secondary Antibody: FITC Goat Anti-Rabbit (green) at 1:200 for 2 hours at RT. Counterstain: DAPI (blue) nuclear stain at 1:40000 for 2 hours at RT. Localization: Endoplasmic reticulum lumen. Melanosome. Magnification: 100x. (A) DAPI (blue) nuclear stain. (B) Anti-GRP94 Antibody. (C) Composite. Heat Shocked at 42°C for 1h.



Western Blotting

Image 2. Western blot analysis of Rat brain cell lysates showing detection of ~ 94-100 kDa GRP94 protein using Rabbit Anti-GRP94 Polyclonal Antibody . Lane 1: MW ladder. Lane 2: Anti-GRP94 (1:250). Load: 20 µg. Block: 5% milk + TBST for 1 hour at RT. Primary Antibody: Rabbit Anti-GRP94 Polyclonal Antibody at 1:250 for 1 hour at RT. Secondary Antibody: Goat Anti-Mouse HRP antibody at 1:50-1:100 for 1 hour at RT. Color Development: TMB solution for 5 min at RT. Predicted/Observed Size: ~ 94-100 kDa. Other Band(s): ~50, ~75 kDa.



Immunofluorescence (fixed cells)

Image 3. Immunocytochemistry/Immunofluorescence analysis using Rabbit Anti-GRP94 Polyclonal Antibody . Tissue: Heat Shocked HeLa Cells. Species: Human. Fixation: 2% Formaldehyde for 20 min at RT. Primary Antibody: Rabbit Anti-GRP94 Polyclonal Antibody at 1:120 for 12 hours at 4°C. Secondary Antibody: APC Goat Anti-Rabbit (red) at 1:200 for 2 hours at RT. Counterstain: DAPI (blue) nuclear stain at 1:40000 for 2 hours at RT. Localization: Endoplasmic reticulum lumen. Melanosome. Magnification: 20x. (A) DAPI (blue) nuclear stain. (B) Anti-GRP94 Antibody. (C) Composite. Heat Shocked at 42°C for 1h.