Datasheet for ABIN1686653

anti-GRP94 antibody (C-Term)

3 Images

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Overview

Quantity:	100 µg
Target:	GRP94 (HSP90B1)
Binding Specificity:	C-Term
Reactivity:	Mouse
Host:	Rabbit
Clonality:	Polyclonal
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 (ER) lumenal 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

Target Details

	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 hydrolyisis 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

Application Notes:	• 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 ABIN1686652 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

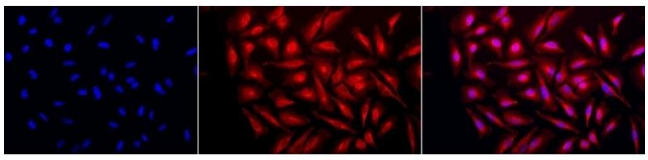
Handling

Format:	Liquid
Concentration:	1 mg/mL
Buffer:	PBS pH 7.4, 50 % glycerol, 0.09 % sodium azide, Storage buffer may change when conjugated
Preservative:	Sodium azide

Handling

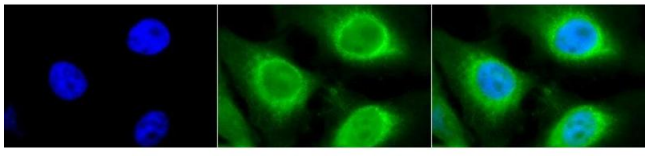
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C
Storage Comment:	-20°C

Images



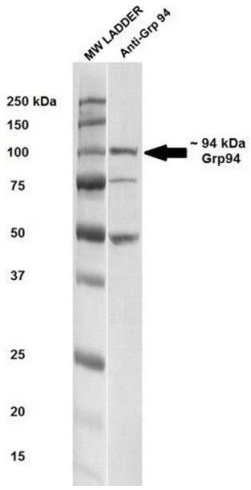
Immunocytochemistry

Image 1. Immunocytochemistry/Immunofluorescence analysis using Rabbit Anti-GRP94 Polyclonal Antibody (ABIN1686652 and ABIN1686653). Tissue: Heat Shocked Cervical cancer cell line (HeLa). Species: Human. Fixation: 2 % Formaldehyde for 20 min at RT. Primary Antibody: Rabbit Anti-GRP94 Polyclonal Antibody (ABIN1686652 and ABIN1686653) 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.



Immunocytochemistry

Image 2. Immunocytochemistry/Immunofluorescence analysis using Rabbit Anti-GRP94 Polyclonal Antibody (ABIN1686652 and ABIN1686653). Tissue: Heat Shocked Cervical cancer cell line (HeLa). Species: Human. Fixation: 2 % Formaldehyde for 20 min at RT. Primary Antibody: Rabbit Anti-GRP94 Polyclonal Antibody (ABIN1686652 and ABIN1686653) 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 3. Western blot analysis of Rat brain cell lysates showing detection of ~ 94-100 kDa GRP94 protein using Rabbit Anti-GRP94 Polyclonal Antibody (ABIN1686652 and ABIN1686653). 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 (ABIN1686652 and ABIN1686653) at 1:250 for 1 hour at RT. Secondary Antibody: Goat Anti-Rabbit 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.