

Product Datasheet

GRP94 Antibody: RPE (orb151212)

Catalog Number	orb151212
Category	Antibodies
Description	Rabbit polyclonal to GRP94 (RPE). Grp94 (glucose regulated protein 94, gp96) is a constitutively expressed endoplasmic reticulum (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. 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. Grp94 is a member of the Hsp90 family of stress proteins and shares sequence homology with its cytosolic equivalent, Hsp90. Both Hsp90 and Grp94 are calcium binding proteins. 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. 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. Grp94 contains a carboxy terminal KDEL (Lys-Asp-Glu-Leu) sequence which is believed to aid in its retention in the ER..
Target	GRP94
Clonality	Polyclonal
Species/Host	Rabbit
Conjugation	RPE
Reactivity	Bovine, Human, Mouse, Rat
Concentration	1 mg/ml
Buffer/Preservatives	95.64mM Phosphate, 2.48mM MES and 2mM EDTA

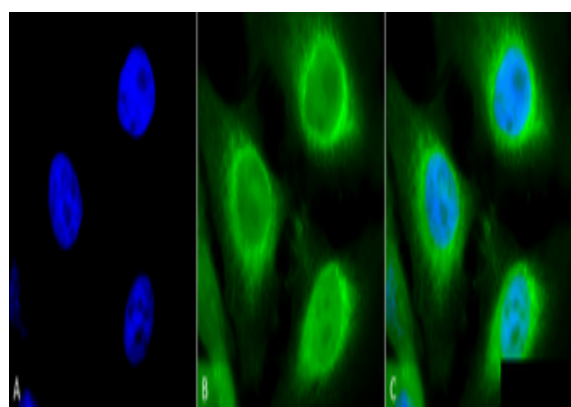
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Purification	Peptide Affinity Purified
Immunogen	Synthetic peptide corresponding to the sequence near the C-terminus of mouse GRP94
UniProt ID	P08113
MW	94kDa
Tested applications	ICC, IF, IHC, WB
Dilution range	WB (1:1000), ICC/IF (1:120), IP (1:80)
Application notes	1 µg/ml of SPC-101 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.
Storage	Conjugated antibodies should be stored according to the product label
Note	For research use only
Entrez	22027
NCBI	NP_035761.1



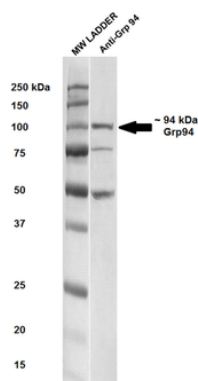
Immunocytochemistry/Immunofluorescence analysis using Rabbit Anti-GRP94 Polyclonal Antibody. Tissue: Heat Shocked Cervical cancer cell line (HeLa). Species: Human. Fixation: 2% Formaldehyde for 20 min at RT. Primary Antibody: Rabbit Anti-GRP94 Polyclonal Antibody at 1:120 for 12 hours at 4°C. Secondary 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.

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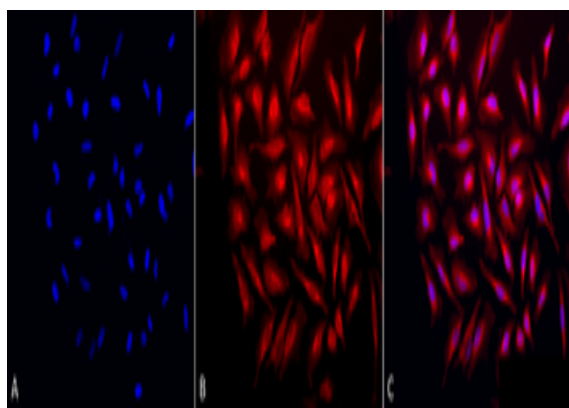
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Western blot analysis of Rat brain cell lysates showing detection of ~94-100 kDa GRP94 protein using Rabbit Anti-GRP94 Polyclonal Antibody. Lane 1: MW ladder. Lane 2: Anti-GRP94 (1:250). Load: 20 µg. Block: 5% milk + TBST for 1 hour at RT. Primary Antibody: Rabbit Anti-GRP94 Polyclonal Antibody at 1:250 for 1 hour at RT. Secondary Antibody: Goat Anti-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.



Immunocytochemistry/Immunofluorescence analysis using Rabbit Anti-GRP94 Polyclonal Antibody. 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 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.

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