

## Product Datasheet

### GRP94 Antibody (FITC) (orb151208)

<b>Catalog Number</b>	orb151208
<b>Category</b>	Antibodies
<b>Description</b>	<p>Rabbit polyclonal to GRP94 (FITC). 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..</p>
<b>Target</b>	GRP94
<b>Clonality</b>	Polyclonal
<b>Species/Host</b>	Rabbit
<b>Conjugation</b>	FITC
<b>Reactivity</b>	Bovine, Human, Mouse, Rat
<b>Concentration</b>	1 mg/ml

**Biorbyt Ltd.**

7 Signet Court, Swann Road  
Cambridge  
CB5 8LA  
United Kingdom

Email: [info@biorbyt.com](mailto:info@biorbyt.com), [support@biorbyt.com](mailto:support@biorbyt.com)

Phone: [+44 \(0\)1223 859353](tel:+44(0)1223859353) | Fax: [+1 \(415\) 651-8558](tel:+1(415)651-8558)

**Biorbyt LLC**

68 TW Alexander Drive  
Research Triangle Park  
Durham  
NC 27713  
United States

Email: [info@biorbyt.com](mailto:info@biorbyt.com), [support@biorbyt.com](mailto:support@biorbyt.com)

Phone: [+1 \(415\) 906-5211](tel:+1(415)906-5211) | Fax: [+1 \(415\) 651-8558](tel:+1(415)651-8558)

<b>Buffer/Preservatives</b>	640.91mM DMSO, 136.36 mM Ethanolamine, 126.89 mM chlorides, 9.09mM phosphates, 9.09mM NaHCO <sub>3</sub>
<b>Purification</b>	Peptide Affinity Purified
<b>Immunogen</b>	Synthetic peptide corresponding to the sequence near the C-terminus of mouse GRP94
<b>UniProt ID</b>	<b>P08113</b>
<b>MW</b>	94kDa
<b>Tested applications</b>	ICC, IF, IHC, IP, WB
<b>Dilution range</b>	WB (1:1000), ICC/IF (1:120), IP (1:80)
<b>Application notes</b>	1 µg/ml 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.
<b>Specificity</b>	Detects ~94kDa.
<b>Storage</b>	Conjugated antibodies should be stored according to the product label
<b>Note</b>	For research use only
<b>Entrez</b>	<b>22027</b>
<b>NCBI</b>	<b>NP_035761.1</b>
<b>Expiration Date</b>	12 months from date of receipt.

**Biorbyt Ltd.**

7 Signet Court, Swann Road  
Cambridge  
CB5 8LA  
United Kingdom

Email: [info@biorbyt.com](mailto:info@biorbyt.com), [support@biorbyt.com](mailto:support@biorbyt.com)

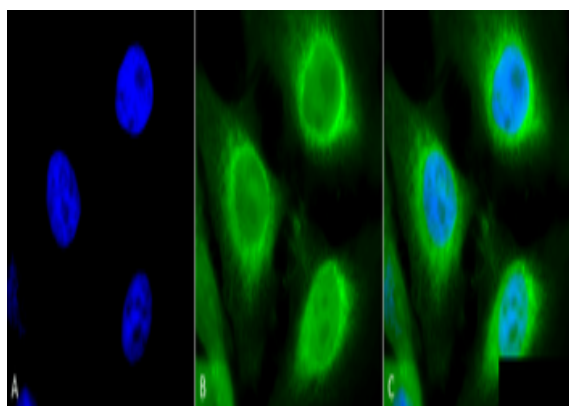
Phone: [+44 \(0\)1223 859353](tel:+44(0)1223859353) | Fax: [+1 \(415\) 651-8558](tel:+1(415)651-8558)

**Biorbyt LLC**

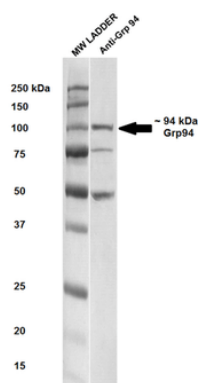
68 TW Alexander Drive  
Research Triangle Park  
Durham  
NC 27713  
United States

Email: [info@biorbyt.com](mailto:info@biorbyt.com), [support@biorbyt.com](mailto:support@biorbyt.com)

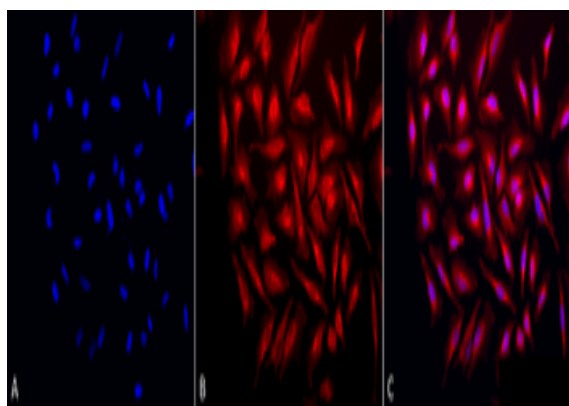
Phone: [+1 \(415\) 906-5211](tel:+1(415)906-5211) | Fax: [+1 \(415\) 651-8558](tel:+1(415)651-8558)



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.



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.

**Biorbyt Ltd.**

7 Signet Court, Swann Road  
Cambridge  
CB5 8LA  
United Kingdom

Email: [info@biorbyt.com](mailto:info@biorbyt.com), [support@biorbyt.com](mailto:support@biorbyt.com)  
Phone: +44 (0)1223 859353 | Fax: +1 (415) 651-8558

**Biorbyt LLC**

68 TW Alexander Drive  
Research Triangle Park  
Durham  
NC 27713  
United States

Email: [info@biorbyt.com](mailto:info@biorbyt.com), [support@biorbyt.com](mailto:support@biorbyt.com)  
Phone: +1 (415) 906-5211 | Fax: +1 (415) 651-8558