

For Research Use Only

# GRP94 Recombinant monoclonal antibody

Catalog Number: 83147-5-RR



## Basic Information

### Catalog Number:

83147-5-RR

### Source:

Rabbit

### Isotype:

IgG

### Immunogen Catalog Number:

AG1439

### GenBank Accession Number:

BC009195

### GeneID (NCBI):

7184

### UNIPROT ID:

P14625

### Full Name:

heat shock protein 90kDa beta (Grp94), member 1

### Calculated MW:

96 kDa

### Observed MW:

100 kDa

### Purification Method:

Protein A purification

### CloneNo.:

230502B7

### Recommended Dilutions:

WB: 1:5000-1:50000

IP: 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate

IHC: 1:200-1:800

IF/ICC: 1:125-1:500

FC (Intra): 0.25 ug per 10<sup>6</sup> cells in a 100 µl suspension

## Applications

### Tested Applications:

WB, IHC, IF/ICC, FC (Intra), IP, ELISA

### Species Specificity:

human, pig

**Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (\*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0**

### Positive Controls:

**WB**: HeLa cells, HEK-293 cells, Jurkat cells, HepG2 cells, LNCaP cells, pig brain tissue

**IP**: HeLa cells,

**IHC**: human lung cancer tissue,

**IF/ICC**: HeLa cells, HEK-293 cells

**FC (Intra)**: A431 cells,

## Background Information

Glucose-regulated protein 94 (GRP94), also called HSP90B1 and GP96, is an endoplasmic reticulum (ER)-resident member of the heat shock protein 90 (HSP90) family (PMID: 33802964; 24658275). Under ER stress conditions, GRP94 accelerates its function as a molecular chaperone. Client proteins of GRP94 include toll-like receptors (TLRs), glycoprotein (GP) IX subunit, insulin-like growth factors (IGFs), proinsulin, and integrins (PMID: 7913987; 32781621; 22079671). As well as being an ER chaperone, GRP94 can also participate in Calcium regulation and is also a regulator of innate and adaptive immunity (PMID: 33802964; 11584270).

## Storage

### Storage:

Store at -20°C. Stable for one year after shipment.

### Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol, pH7.3

Aliquoting is unnecessary for -20°C storage

For technical support and original validation data for this product please contact:

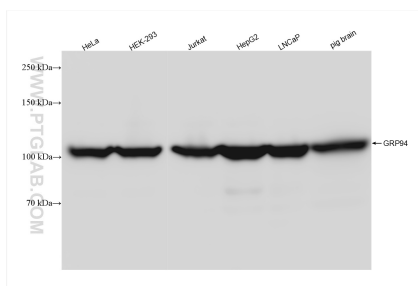
T: 4006900926

E: [Proteintech-CN@ptglab.com](mailto:Proteintech-CN@ptglab.com)

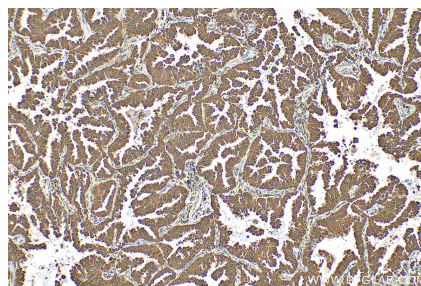
W: [ptgcn.com](http://ptgcn.com)

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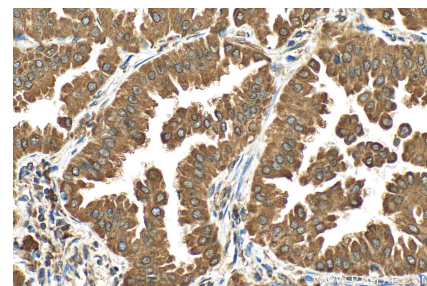
## Selected Validation Data



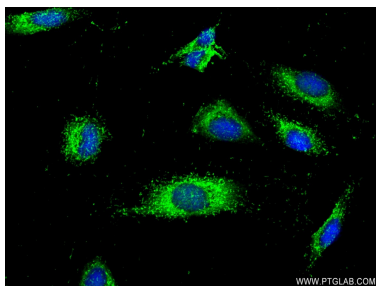
Various lysates were subjected to SDS PAGE followed by western blot with 83147-5-RR (GRP94 antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours.



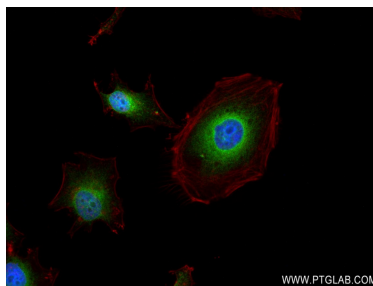
Immunohistochemical analysis of paraffin-embedded human lung cancer tissue slide using 83147-5-RR (GRP94 antibody) at dilution of 1:400 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



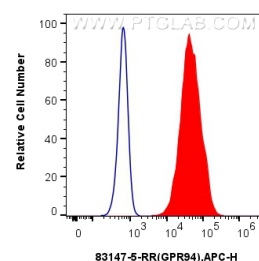
Immunohistochemical analysis of paraffin-embedded human lung cancer tissue slide using 83147-5-RR (GRP94 antibody) at dilution of 1:400 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



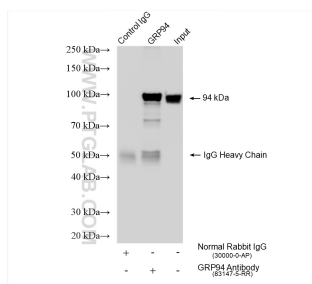
Immunofluorescent analysis of (-20°C Ethanol) fixed HeLa cells using GRP94 antibody (83147-5-RR, Clone: 230502B7) at dilution of 1:300 and CoraLite®488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L) (SA00013-1).



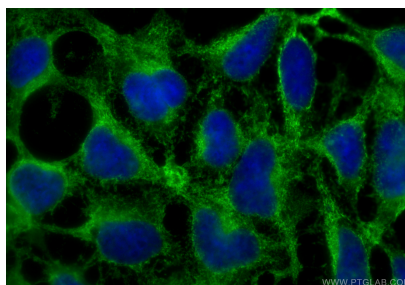
Immunofluorescent analysis of (4% PFA) fixed HeLa cells using GRP94 antibody (83147-5-RR, Clone: 230502B7) at dilution of 1:250 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) (SA00013-2), CL594-Phalloidin (red).



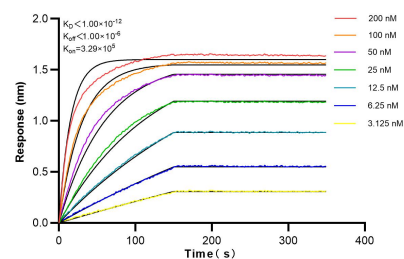
$1 \times 10^6$  A431 cells were intracellularly stained with 0.25 ug Grp94 Recombinant Antibody (83147-5-RR, Clone:230502B7) and APC-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L)(red), or 0.25 ug rabbit IgG isotype control (blue). Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer.



IP result of anti-GRP94 (IP:83147-5-RR, 4ug; Detection:83147-5-RR 1:5000) with HeLa cells lysate 1260 ug.



Immunofluorescent analysis of (-20°C Ethanol) fixed HEK-293 cells using GRP94 antibody (83147-5-RR, Clone: 230502B7) at dilution of 1:200 and Multi-rAb CoraLite® Plus 488-Goat Anti-Rabbit Recombinant Secondary Antibody (H+L) (RGAR002).



Bi-layer interferometry (BLI) kinetic assays of 83147-5-RR against Human GRP94 were performed. The affinity constant is below 1 pM.