

For Research Use Only

# GRP94 Recombinant antibody

Catalog Number: 83147-5-RR



## Basic Information

<b>Catalog Number:</b> 83147-5-RR	<b>GenBank Accession Number:</b> BC009195	<b>Purification Method:</b> Protein A purification
<b>Size:</b> 100ul , Concentration: 1000 ug/ml by Nanodrop;	<b>GeneID (NCBI):</b> 7184	<b>CloneNo.:</b> 230502B7
<b>Source:</b> Rabbit	<b>UNIPROT ID:</b> P14625	<b>Recommended Dilutions:</b> 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
<b>Isotype:</b> IgG	<b>Full Name:</b> heat shock protein 90kDa beta (Grp94), member 1	
<b>Immunogen Catalog Number:</b> AG1439	<b>Calculated MW:</b> 96 kDa	
	<b>Observed MW:</b> 100 kDa	

## 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

## 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 pH 7.3.  
Aliquoting is unnecessary for -20°C storage

\*\*\* 20ul sizes contain 0.1% BSA

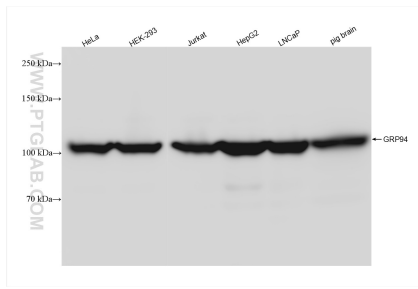
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

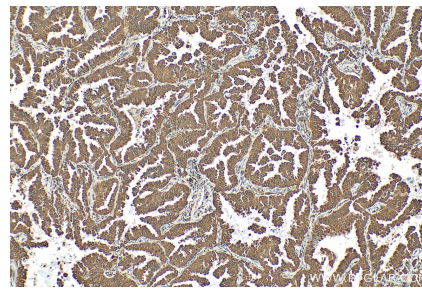
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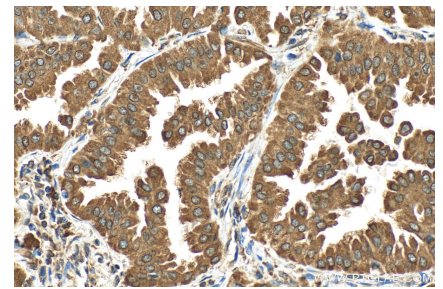
## Selected Validation Data



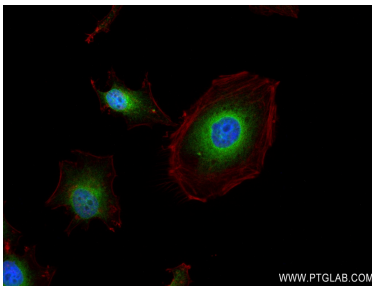
Various lysates were subjected to SDS PAGE followed by western blot with 83147-5-RR (GRP94 antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours.



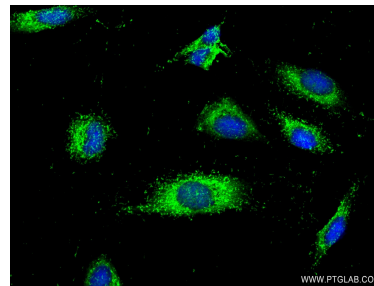
Immunohistochemical analysis of paraffin-embedded human lung cancer tissue slide using 83147-5-RR (GRP94 antibody) at dilution of 1:400 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



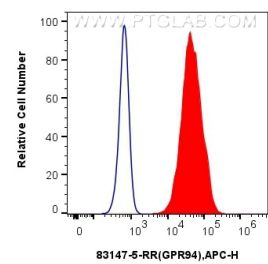
Immunohistochemical analysis of paraffin-embedded human lung cancer tissue slide using 83147-5-RR (GRP94 antibody) at dilution of 1:400 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



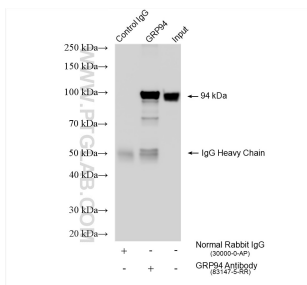
Immunofluorescent analysis of (4% PFA) fixed HeLa cells using GRP94 antibody (83147-5-RR, Clone: 230502B7) at dilution of 1:250 and CoraLite@488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) (SA00013-2), CL594-Phalloidin (red).



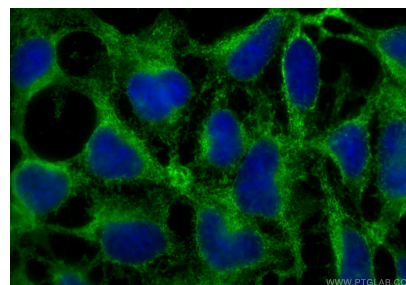
Immunofluorescent analysis of (-20°C Ethanol) fixed HeLa cells using GRP94 antibody (83147-5-RR, Clone: 230502B7) at dilution of 1:300 and CoraLite@488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L) (SA00013-1).



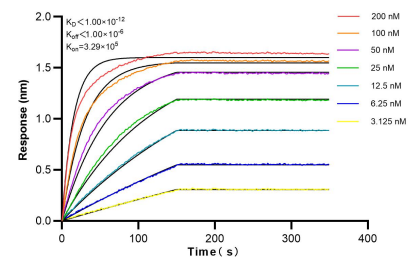
$1 \times 10^6$  A431 cells were intracellularly stained with 0.25 ug Grp94 Recombinant Antibody (83147-5-RR, Clone:230502B7) and APC-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L)(red), or 0.25 ug Rabbit IgG control Rabbit PolyAb (30000-0-AP) (blue). Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).



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.