

For Research Use Only

# GRP94 Monoclonal antibody

Catalog Number: 60012-2-Ig **9 Publications**



## Basic Information

<b>Catalog Number:</b> 60012-2-Ig	<b>GenBank Accession Number:</b> BC009195	<b>Purification Method:</b> Protein G purification
<b>Size:</b> 150ul , Concentration: 1000 ug/ml by Nanodrop;	<b>GeneID (NCBI):</b> 7184	<b>CloneNo.:</b> 4G7C7
<b>Source:</b> Mouse	<b>UNIPROT ID:</b> P14625	<b>Recommended Dilutions:</b> WB: 1:2000-1:10000 IHC: 1:200-1:800 IF/ICC: 1:400-1:1600 FC (Intra): 0.40 ug per 10 <sup>6</sup> cells in a 100 µl suspension
<b>Isotype:</b> IgG1	<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> 95 kDa	

## Applications

<b>Tested Applications:</b> WB, IHC, IF/ICC, FC (Intra), ELISA	<b>Positive Controls:</b> WB : HeLa cells, HEK-293 cells, HepG2 cells, Jurkat cells IHC : human colon cancer tissue, human pancreas cancer tissue IF/ICC : HepG2 cells, A431 cells FC (Intra) : HeLa cells,
<b>Cited Applications:</b> WB	
<b>Species Specificity:</b> human	
<b>Cited Species:</b> human, mouse	

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

## 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).

## Notable Publications

Author	Pubmed ID	Journal	Application
Chenxue Gong	31743135	Anticancer Drugs	WB
Li-Feng-Rong Qi	39178680	Phytomedicine	WB
Madalena Grenhas	39126063	Int J Mol Sci	

## Storage

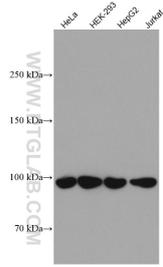
**Storage:**  
Store at -20°C. Stable for one year after shipment.  
**Storage Buffer:**  
PBS with 0.02% sodium azide and 50% glycerol, pH7.3  
Aliquoting is unnecessary for -20°C storage

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

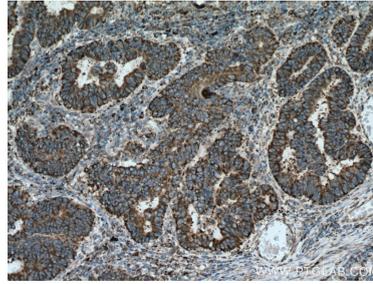
For technical support and original validation data for this product please contact:  
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)  
E: proteintech@ptglab.com  
W: ptglab.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

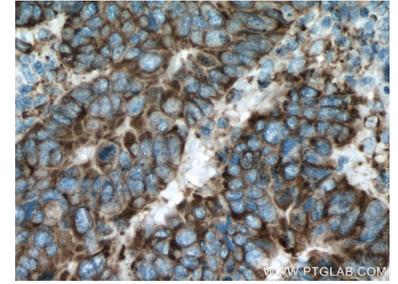
## Selected Validation Data



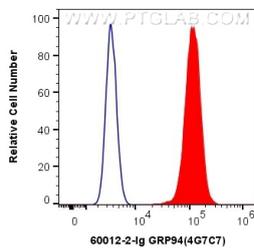
Various lysates were subjected to SDS PAGE followed by western blot with 60012-2-Ig (GRP94 antibody) at dilution of 1:5000 incubated at room temperature for 1.5 hours.



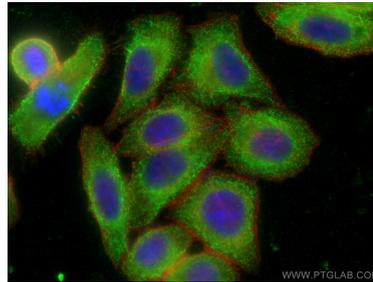
Immunohistochemical analysis of paraffin-embedded human colon cancer tissue slide using 60012-2-Ig (GRP94 antibody) at dilution of 1:400 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



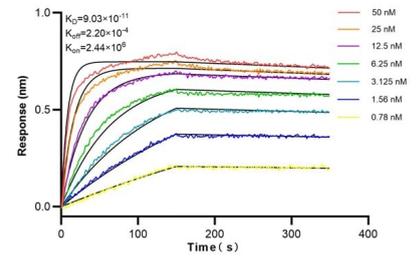
Immunohistochemical analysis of paraffin-embedded human colon cancer tissue slide using 60012-2-Ig (GRP94 antibody) at dilution of 1:400 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



1X10<sup>6</sup> HeLa cells were intracellularly stained with 0.4 ug Anti-Human GRP94 (60012-2-Ig, Clone:4G7C7) and Coralite®488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L) at dilution 1:1000 (red), or 0.4 ug Mouse IgG1 Isotype Control (MOPC-21) (65124-1-Ig, Clone: MOPC-21) (blue). Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).



Immunofluorescent analysis of (-20°C Ethanol) fixed HepG2 cells using GRP94 antibody (60012-2-Ig, Clone: 4G7C7) at dilution of 1:800 and Coralite®488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L) (SA00013-1), CL594-Phalloidin (red).



Biolayer interferometry (BLI) kinetic assays of 60012-2-Ig against Human GRP94 were performed. The affinity constant is 90.3 pM.