

GRP94 Monoclonal antibody

Catalog Number: 60012-2-Ig 9 Publications

Basic Information

Catalog Number: 60012-2-Ig	GenBank Accession Number: BC009195	Purification Method: Protein G purification
Concentration: 1000 ug/ml	GeneID (NCBI): 7184	CloneNo.: 4G7C7
Source: Mouse	UNIPROT ID: P14625	Recommended Dilutions: WB: 1:2000-1:10000
Isotype: IgG1	Full Name: heat shock protein 90kDa beta (Grp94), member 1	IHC: 1:200-1:800
Immunogen Catalog Number: AG1439	Calculated MW: 96 kDa	IF/ICC: 1:400-1:1600
	Observed MW: 95 kDa	FC (Intra): 0.40 ug per 10 ⁶ cells in a 100 µl suspension

Applications

Tested Applications: WB, IHC, IF/ICC, FC (Intra), ELISA	Positive Controls:
Cited Applications: WB	WB : HeLa cells, HEK-293 cells, HepG2 cells, Jurkat cells
Species Specificity: human	IHC : human colon cancer tissue, human pancreas cancer tissue
Cited Species: human, mouse	IF/ICC : HepG2 cells, A431 cells
Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0	FC (Intra) : HeLa 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).

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

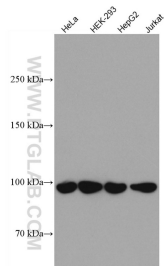
For technical support and original validation data for this product please contact:

T: 4006900926

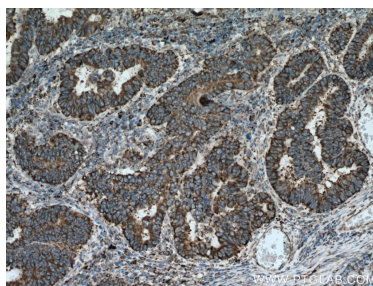
E: Proteintech-CN@ptglab.comW: ptgcn.com

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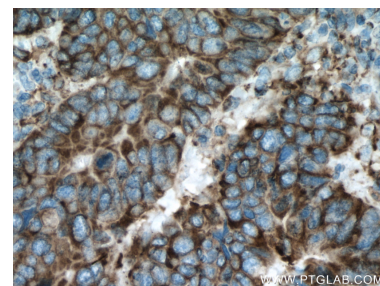
Selected Validation Data



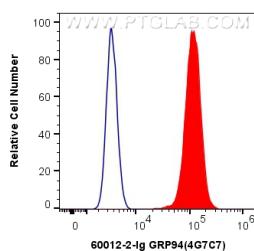
Various lysates were subjected to SDS PAGE followed by western blot with 60012-2-Ig (GRP94 antibody) at dilution of 1:5000 incubated at room temperature for 1.5 hours.



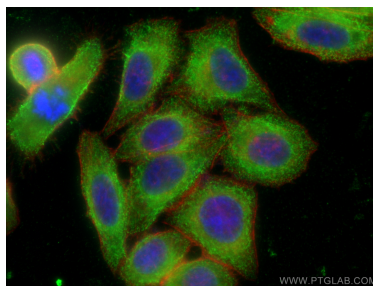
Immunohistochemical analysis of paraffin-embedded human colon cancer tissue slide using 60012-2-Ig (GRP94 antibody) at dilution of 1:400 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



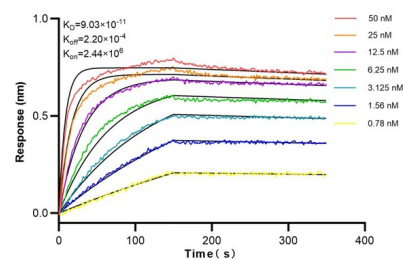
Immunohistochemical analysis of paraffin-embedded human colon cancer tissue slide using 60012-2-Ig (GRP94 antibody) at dilution of 1:400 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



1X10⁶ 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).



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