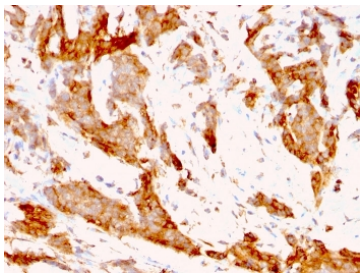
GRP94 Antibody 9G10.F8.2 / HSP90B1 Monoclonal Antibody [clone 9G10.F8.2] (V2908)

Catalog No.	Formulation	Size
V2908-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V2908-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V2908SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V2908IHC-7ML	Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only*	7 ml

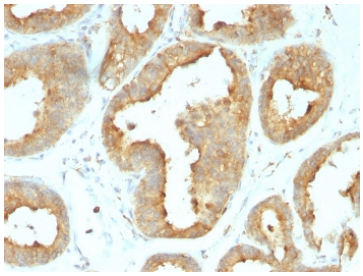
Citations (6)

Bulk quote request

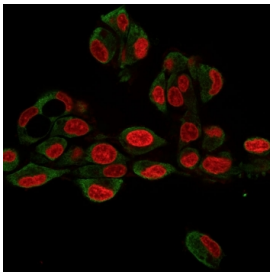
Species Reactivity	Human, Mouse, Rat
Format	Purified
Host	Rat
Clonality	Monoclonal (rat origin)
Isotype	Rat IgG2a, kappa
Clone Name	9G10.F8.2
Purity	Protein G affinity chromatography
UniProt	P14625
RRID	AB_3758468
Localization	Cytoplasmic and nuclear
Applications	Flow cytometry: 1-2ug/million cells Immunofluorescence: 1-3ug/ml Western blot: 2-4ug/ml Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT
Limitations	This GRP94 Antibody 9G10.F8.2 / HSP90B1 Monoclonal Antibody is available for research use only.



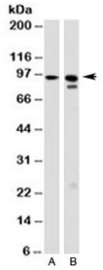
GRP94 Antibody 9G10.F8.2 IHC Staining in Human Breast Carcinoma. Immunohistochemical analysis of FFPE human breast carcinoma tissue using HSP90B1 Monoclonal Antibody clone 9G10.F8.2. Brown DAB staining is observed predominantly in the cytoplasm of carcinoma cells, with heterogeneous staining throughout the tissue. Heat-mediated antigen retrieval was performed using 10 mM Tris and 1 mM EDTA buffer (pH 9.0) for 20 minutes.



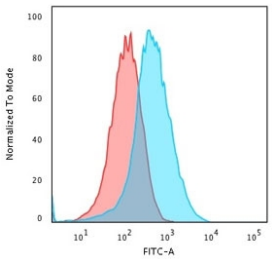
GRP94 Antibody 9G10.F8.2 IHC Staining in an Additional Human Breast Carcinoma Section. Immunohistochemical analysis of FFPE human breast carcinoma tissue using HSP90B1 Monoclonal Antibody clone 9G10.F8.2. Brown DAB staining is visible in the cytoplasm of carcinoma cells surrounding glandular and duct-like spaces, consistent with the predominantly endoplasmic reticulum-associated localization of GRP94. Heat-mediated antigen retrieval was performed using 10 mM Tris and 1 mM EDTA buffer (pH 9.0) for 20 minutes.



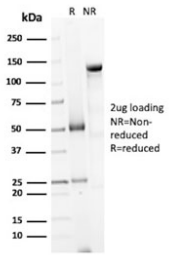
GRP94 Antibody 9G10.F8.2 IF Staining in Human HepG2 Cells. Immunofluorescence analysis of human HepG2 cells using HSP90B1 Monoclonal Antibody clone 9G10.F8.2. GRP94 is visualized in green, with RedDot nuclear counterstaining in red. Green fluorescence is concentrated in the cytoplasm surrounding the nuclei, consistent with the endoplasmic reticulum localization of GRP94.



GRP94 Antibody 9G10.F8.2 Western Blot Analysis of Human HeLa and Mouse NIH3T3 Cells. Western blot analysis using HSP90B1 Monoclonal Antibody clone 9G10.F8.2. Lane A: human HeLa cell lysate. Lane B: mouse NIH3T3 cell lysate. A predominant immunoreactive band is detected near 94-96 kDa in both samples, consistent with the expected molecular weight of GRP94/HSP90B1.



GRP94 Antibody 9G10.F8.2 Flow Cytometry Analysis of Human HepG2 Cells. Flow cytometry analysis of PFA-fixed human HepG2 cells using HSP90B1 Monoclonal Antibody clone 9G10.F8.2. The blue histogram represents GRP94 antibody staining, while the red histogram represents the isotype control. The GRP94-stained population exhibits a rightward fluorescence shift relative to the control, indicating antibody-associated fluorescence.



GRP94 Antibody 9G10.F8.2 SDS-PAGE Purity Analysis of Purified Rat Monoclonal Antibody. SDS-PAGE analysis of purified, BSA-free HSP90B1 Monoclonal Antibody clone 9G10.F8.2 under non-reducing (NR) and reducing (R) conditions. The non-reduced antibody migrates predominantly near 150 kDa, while reduction produces bands corresponding to the immunoglobulin heavy and light chains at approximately 50 and 25 kDa, respectively. The gel provides an assessment of antibody integrity and purity.

Description

GRP94 Antibody 9G10.F8.2 / HSP90B1 Monoclonal Antibody targets glucose-regulated protein 94 (GRP94), also known as gp96, endoplasmin, and heat shock protein 90 beta family member 1 (HSP90B1). GRP94 is an ATP-dependent molecular chaperone primarily localized to the endoplasmic reticulum (ER), where it facilitates the folding, maturation, and quality control of selected secretory and membrane proteins. As the ER-resident member of the HSP90 family, GRP94 contributes to protein homeostasis and helps maintain cellular function during conditions that disrupt normal protein folding.

GRP94 contains an N-terminal ATP-binding domain, a middle domain involved in client protein interactions, and a C-terminal region responsible for dimerization. Its chaperone activity depends on ATP binding and hydrolysis, which coordinate conformational changes required for client protein maturation. Unlike the cytosolic HSP90 proteins, GRP94 operates within the ER and assists a specialized group of clients, including several integrins, Toll-like receptors, and insulin-like growth factors. These interactions connect GRP94 to cell adhesion, innate immune signaling, and growth regulation.

Expression of GRP94 increases during ER stress as part of the unfolded protein response (UPR), a signaling network that restores proteostasis by adjusting protein synthesis, folding capacity, and degradation. GRP94 works alongside other ER chaperones, including BiP/GRP78, to limit the accumulation of improperly folded proteins. Persistent ER stress can alter the balance between adaptive survival mechanisms and pathways leading to apoptosis, making GRP94 an important component of cellular stress regulation.

GRP94 also participates in tumor biology and immune regulation. Increased expression has been reported in several malignancies, where its chaperone functions may support tumor cell survival under conditions of metabolic and proteotoxic stress. The protein can additionally appear at the cell surface or in extracellular environments, where it has been associated with immune signaling. Research involving GRP94 Antibody 9G10.F8.2 supports investigation of ER proteostasis, molecular chaperone activity, and the relationships between cellular stress adaptation, cancer progression, and immune function.

Explore additional antibodies involved in protein folding, endoplasmic reticulum stress, molecular chaperone activity, and cellular proteostasis in our Cell Biology Antibodies collection.

Application Notes

Optimal dilution of the GRP94 Antibody 9G10.F8.2 / HSP90B1 Monoclonal Antibody should be determined by the researcher.

1. The prediluted format is supplied in a dropper bottle and is optimized for use in IHC. After epitope retrieval step (if required), drip mAb solution onto the tissue section and incubate at RT for 30 min.

Immunogen

Purified glucose regulated protein 94 from chicken oviducts was used as the immunogen for the GRP94 antibody.

Storage

Store the GRP94 antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

GRP94 antibody, HSP90B1 antibody, gp96 antibody, Endoplasmin antibody, Glucose-regulated protein 94 antibody, Glucose-regulated protein 96 antibody, HSP90 beta family member 1 antibody, Heat shock protein 90 beta member 1 antibody, Tumor rejection antigen gp96 antibody, ER-resident HSP90 antibody

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