

Product datasheet for **TA326419**

GRP94 (HSP90B1) Rat Monoclonal Antibody [Clone ID: 9G10]

Product data:

Product Type:	Primary Antibodies
Clone Name:	9G10
Applications:	WB
Recommended Dilution:	0.5ug/ml was sufficient for detection of Grp94 in 20ug of HeLa lysate.
Reactivity:	Human, Mouse, Rat, Bovine, Canine, Chicken, Hamster, Rabbit, Monkey, Pig, Sheep, Xenopus, Horse, Guinea Pig
Host:	Rat
Isotype:	IgG2a
Clonality:	Monoclonal
Immunogen:	Purified Grp94 isolated from chicken oviducts
Formulation:	PBS pH7.2, 50% glycerol, 0.09% sodium azide
Concentration:	lot specific
Purification:	Protein G Purified
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	heat shock protein 90kDa beta family member 1
Database Link:	NP_003290 Entrez Gene 22027 MouseEntrez Gene 362862 RatEntrez Gene 699568 MonkeyEntrez Gene 7184 Human P14625



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Background:

Grp94 (glucose regulated protein 94, gp96) is a constitutively expressed endoplasmic reticulum (ER) luminal protein that is up-regulated in response to cellular stress such as heat shock, oxidative stress or glucose depletion. Grp94 is thought to play a role in protein translocation to the ER, in their subsequent folding and assembly, and in regulating protein secretion . Grp94 also plays a role in antigen presentation by accessing the endogenous pathway and eliciting specific CTL responses to chaperone bound peptides via MHC class I pathway Grp94 is a member of the Hsp90 family of stress proteins and shares sequence homology with its cytosolic equivalent, Hsp90 . Both Hsp90 and Grp94 are calcium binding proteins . Despite sharing 50% sequence homology over its N domains and complete conservation in its ligand binding domains with Hsp90, Grp94 and Hsp90 differ in their interactions with regulatory ligands as Grp94 has weak ATP binding and hydrolysis activity . Grp94 exists as a homodimer and the two subunits interact at two distinct intermolecular sites, C terminal dimerization domains and the N-terminal interacts with the middle domain of opposing subunits. . Grp94 contains a carboxy terminal KDEL (Lys-Asp-Glu-Leu) sequence which is believed to aid in its retention in the ER .

Synonyms:

ECGP; GP96; GRP94; HEL-S-125m; HEL35; TRA1

Note:

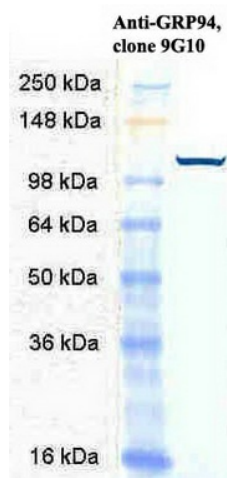
Detects a 98kDa protein corresponding to the molecular mass of Grp94 on SDS PAGE immunoblots. Does not detect human Hsp90, Grp74, or GrpE from E.coli.

Protein Families:

Druggable Genome

Protein Pathways:

NOD-like receptor signaling pathway, Pathways in cancer, Prostate cancer

Product images:

Western blot analysis of Grp94 using HeLa cell lysate at 1:1000 dilution of the antibody