Grp94 monoclonal antibody (9G10) (PE conjugate)

Glucose-regulated protein 94 (Grp94, gp96), an abundant resident endoplasmic reticulum (ER) lumenal stress protein, belongs to the Hsp90 family of molecular chaperones along with cytosolic Hsp90. Grp94 and such other resident soluble proteins of the ER as the Ca 2+ binding protein subfamily (CaBP, CaBPI, CaBP2 and calreticulin) possess the C-terminal tetrapeptide Lys-Asp-Glu-Leu (KDEL), a sorting signal considered responsible for the retention of these proteins in the pre-Golgi compartments. Stress conditions such as glucose starvation and heat shock which promote protein misfolding or unfolding increase Grp94 expression. In addition to a homeostatic role in protein folding and assembly, Grp94 can function in the intracellular trafficking of peptides from the extracellular space to the MHC class I antigen processing pathway of antigen presentation cells. Grp94 and Hsp90 share high sequence identity and apparently identical adenosine nucleotide dependent modes of regulation, although previous data suggests that Hsp90 and Grp94 may differ in their nucleotide binding properties. The N-terminal domain of eukaryotic Hsp90 proteins contains a conserved adenosine nucleotide binding pocket which also serves as the binding site for the Hsp90 inhibitors geldanamycin and radicicol. However, the molecular basis for adenosine nucleotide-dependent regulation of Grp94 remains unclear. Data supports a ligand dependent regulation of Grp94 function, and suggests a model whereby Grp94 function is regulated through a ligand - dependent conversion of Grp94 from an inactive to an active conformation.

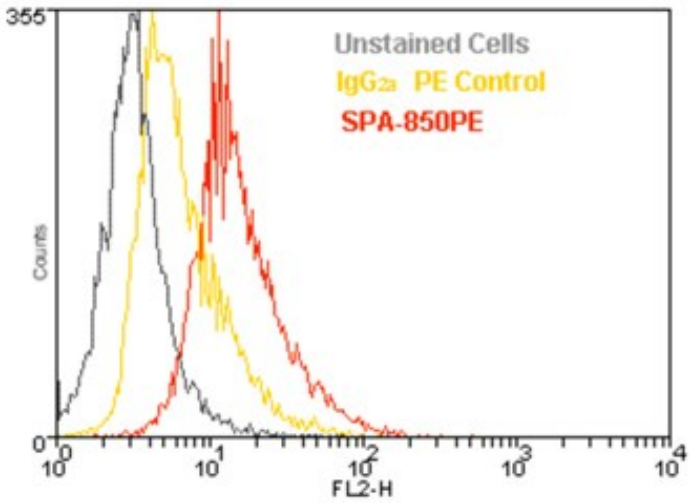
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ADI-SPA-850PE-D	50µg
ADI-SPA-850PE-F	200µg

Manuals, SDS & CofA View Online »



Flow cytometry analysis of 10^6 Jurkat cells stained using Grp94 mAb (9G10), PE Conjugate (ADI-SPA-850PE) at a concentration of 10µg/ml.

Handling & Storage

Handling	Avoid vigorous centrifugation and vortexing. Do not freeze. Protect from light.
Long Term Storage	+4°C
Shipping	Blue Ice

Regulatory Status

RUO - Research Use Only

Product Details

Alternative Name	Endoplasmin, Tra1, Hsp90B1, Gp96
Application	Flow Cytometry
Application Notes	Detects a band of ~94kDa by Western blot.
Clone	9G10
Formulation	Liquid. In PBS, pH 7.2, containing 0.09% sodium azide.
GenBank ID	M14772
Host	Rat
Immunogen	Native chicken Grp94.
Isotype	IgG2a
Purity Detail	Protein G affinity purified.
Recommendation Dilutions/Conditions	Flow Cytometry (1:100)Suggested dilutions/conditions may not be available for all applications.Optimal conditions must be determined individually for each application.
Source	Purified from ascites.
Species Reactivity	Bovine, Chicken, Dog, Guinea pig, Hamster, Human, Monkey, Mouse, Porcine, Rabbit, Rat, Sheep, Xenopus
UniProt ID	P08110

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