

DESCRIPTION

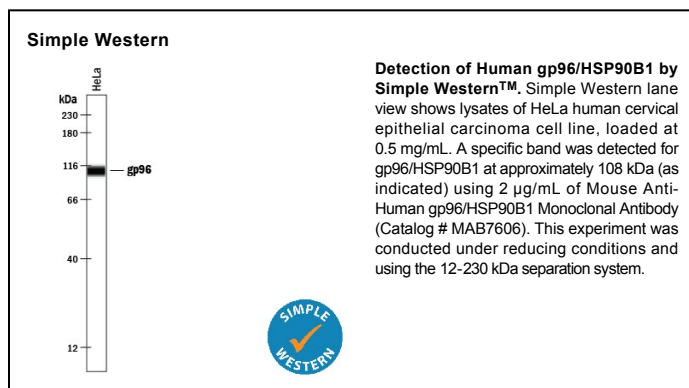
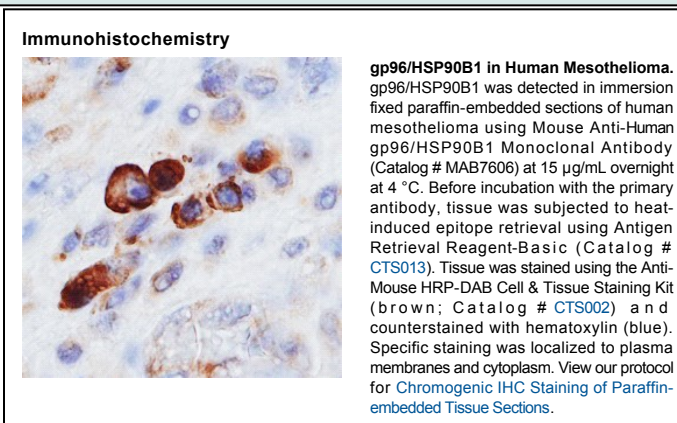
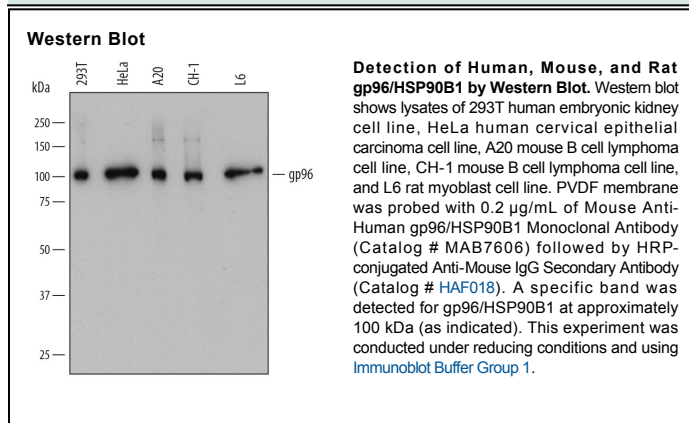
Species Reactivity	Human
Specificity	Detects human gp96/HSP90B1 in direct ELISA and Western Blot. Detects mouse and rat gp96/HSP90B1 in Western Blot.
Source	Monoclonal Mouse IgG _{2A} Clone # 816803
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human gp96/HSP90B1 Arg503-Arg660 Accession # P14625
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Western Blot	0.2 µg/mL	See Below
Immunohistochemistry	8-25 µg/mL	See Below
Simple Western	2 µg/mL	See Below

DATA



PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.5 mg/mL.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Glycoprotein 96 (gp96; also endoplasmic, GRP-94, TRA1 and HSP90B1) is a 94-100 kDa member of the HSP 90 family of proteins. gp96 is a ubiquitously-expressed ER resident protein that is found in a preformed complex with BiP, CaBP1 and UDP-glucosyltransferase. This is a chaperone complex that binds unfolded protein substrates. When folded properly, the substrate is forwarded to calnexin-containing chaperone complexes that promote its maturation. gp96 clients are restricted and include disulfide-bonded integrins, TLRs, LDLR and CD180. Within the complex, gp96 exists as a disulfide-linked homodimer that may form higher-order oligomers. gp96 also appears on the cell surface and may serve as a receptor for bacteria. Mature human gp96 is a 782 amino acid (aa) membrane-associated protein (aa 22-803). It is not a transmembrane protein but utilizes an ER retention signal (aa 800-803) to interact with the ER membrane. The molecule possesses a HATPase-C like region (aa 98-219) plus multiple ATP binding and two utilized phosphorylation sites. Over aa 503-660, human gp96 shares 98% aa sequence identity with mouse gp96.