

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human gp96/HSP90B1 in direct ELISAs and Western blots. Detects mouse and rat gp96/HSP90B1 in Western blots.
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
Conjugate	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide
*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.	

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.

Knockout Validated	Optimal dilution of this antibody should be experimentally determined.
Western Blot	Optimal dilution of this antibody should be experimentally determined.
Immunocytochemistry	Optimal dilution of this antibody should be experimentally determined.
Immunohistochemistry	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

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.

PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc., and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.