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Product Data Sheet

Purified anti-GRP94

Catalog # / Size: 649901 / 25 µl (5 Western blots)
649902 / 100 µl (20 Western blots)

Clone: Poly6499

Isotype: Rabbit IgG

Immunogen: c-terminal recombinant protein

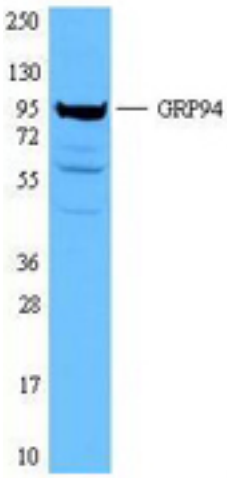
Reactivity: Human

Preparation: The antibody was purified by affinity chromatography.

Formulation: This antibody is provided in phosphate-buffered solution, pH 7.2, 0.09% NaN3, 50% glycerol.

Concentration: 0.5 mg/ml

Storage: Upon receipt, store undiluted at -20°C.



HeLa cell extracts were resolved by electrophoresis, transferred to nitrocelluose, and probed with purified polyclonal anti-GRP94 antibody. Proteins were visualized using a donkey anti-rabbit-IgG secondary conjugated to HRP and chemiluminescence detection.

Applications:

Applications: WB - *Quality tested*

Recommended Usage: Each lot of this antibody is quality control tested by Western blotting. Western blotting, suggested working dilution(s): Use 5 µl per 5 ml antibody dilution buffer for each mini-gel. It is recommended that the reagent be titrated for optimal performance for each application.

Description: HSP90 proteins are highly conserved molecular chaperones that have key roles in signal transduction, protein folding, protein degradation, and morphologic evolution. Glucose-regulated protein 94 (GRP94) is one of the most abundant endoplasmic reticulum (ER) resident proteins and is the ER counterpart of the cytoplasmic heat shock protein 90 (HSP90). GRP94 exists as homodimers containing an N-terminal ATP-binding domain, peptide-binding domain, and C-terminal dimerization domain. GRP94, a component of the GRP78 chaperone system in protein processing, has pro-survival properties with implicated function in cancer progression and autoimmune disease. In mouse tumor models, GRP94 derived from cancer cells also induces anti-tumor immune responses. One reason for this tumor immunogenicity is that GRP94 binds to the peptides from proteins in cancer cells and can therefore present these peptides as tumor antigens. Loss of function studies on GRP94 showed that it is required for embryonic development, regulation of toll-like receptors, and innate immunity of macrophages. Furthermore, GRP94 expression is strikingly high in dendritic cells, smooth muscle, and lung bronchial epithelium and has been shown to induce maturation of dendritic cells.

Antigen References:

1. Lee AS, *et al.* 1981. *P. Natl. Acad. Sci. USA* 78:4922.
2. Argon Y and Simen BB. 1999. *Semin Cell. Dev. Biol.* 10:495.
3. Sorger PK and Pelham HR. 1987. *J. Mol. Biol.* 194:341.
4. Tamura Y, *et al.* 1997. *Science* 278:117.
5. Biswas C, *et al.* 2006. *Int. Immunol.* 18:1147.
6. Mao C, *et al.* 2010 *Plos One* 5:e10852.

Related Products:

Product	Clone	Application
HRP Donkey anti-rabbit IgG (minimal x-reactivity)	Poly4064	ELISA, IHC, WB

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