

#2104 Store at -20°C

Grp94 Antibody



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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source:	UniProt ID:	Entrez-Gene Id:
WB	H M R Mk	Endogenous	100	Rabbit	#P14625	7184

Product Usage Information	Application	Dilution
	Western Blotting	1:1000
Storage	Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C. Do not aliquot the antibody.	
Specificity / Sensitivity	Grp94 Antibody detects endogenous levels of total Grp94 protein.	
Source / Purification	Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to the sequence surrounding Met622 of human Grp94 . Antibodies are purified by protein A and peptide affinity chromatography.	
Background	Secretory proteins are synthesized on polysomes and translocated into the endoplasmic reticulum (ER). Inside ER, these proteins are often modified by disulfide bond formation, amino-linked glycosylation and folding. The ER contains a pool of molecular chaperones, including Grp94, to help ensure correct protein folding. Grp94 is a glucose-regulated protein (1) with sequence homology to Hsp90 (2). In addition to its role in helping to facilitate folding of a number of secretory proteins to their correct conformation (3), studies suggest that Grp94 derived from cancer cells also induces anti-tumor immune responses in mouse tumor models (4, 5). One way in which Grp94 promotes tumor immunogenicity is its ability to bind to and present tumor-derived peptides as antigens (6). Furthermore, Grp94 has also been shown to induce maturation of dendritic cells (7). Taken together, Grp94 functions both as a tumor-specific antigen and as an activator of antigen-presenting cells to elicit an anti-cancer immune response (8).	
Background References	<ol style="list-style-type: none"> 1. Lee, A.S. et al. (1981) <i>Proc. Natl. Acad. Sci. USA</i> 78, 4922-4925. 2. Sorger, P.K. and Pelham, H.R. (1987) <i>J. Mol. Biol.</i> 194, 341-344. 3. Argon, Y. and Simen, B.B. (1999) <i>Semin. Cell Dev. Biol.</i> 10, 495-505. 4. Blachere, N.E. et al. (1997) <i>J. Exp. Med.</i> 186, 1315-1322. 5. Tamura, Y. et al. (1997) <i>Science</i> 278, 117-120. 6. Schild, H. and Rammensee, H.G. (2000) <i>Nat. Immunol.</i> 1, 100-101. 7. Singh-Jasuja, H. et al. (2000) <i>Eur. J. Immunol.</i> 30, 2211-2215. 8. Nicchitta, C.V. et al. (2004) <i>Cell Stress Chaperones</i> 9, 325-331. 	

Species Reactivity	Species reactivity is determined by testing in at least one approved application (e.g., western blot).
Western Blot Buffer	IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.
Applications Key	WB: Western Blotting
Cross-Reactivity Key	H: human M: mouse R: rat Hm: hamster Mk: monkey Vir: virus Mi: mink C: chicken Dm: D. melanogaster X: Xenopus Z: zebrafish B: bovine Dg: dog Pg: pig Sc: S. cerevisiae Ce: C. elegans Hr: horse GP: Guinea Pig Rab: rabbit All: all species expected
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