

**Mouse (monoclonal)  
Anti-Human Grb2  
Unconjugated**

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**PRODUCT ANALYSIS SHEET**

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<b>Catalog Number:</b>	AHO0522
<b>Lot Number:</b>	See product label
<b>Quantity/Volume:</b>	100 µg/0.5 mL
<b>Clone Number:</b>	2GB04 (also known as C1.4)
<b>Isotype:</b>	Mouse IgG1 kappa
<b>Form of Antibody:</b>	Purified immunoglobulin in phosphate buffered saline, pH 7.4, with 0.2% bovine serum albumin.
<b>Preservation:</b>	0.09% sodium azide (Caution: sodium azide is a poisonous and hazardous substance. Handle with care and dispose of properly.)
<b>Purification:</b>	Purified from ascites by Protein G affinity chromatography.
<b>Immunogen:</b>	Purified recombinant human Grb2 protein.
<b>Myeloma/Fusion Partners:</b>	Produced by fusion between BALB/c mouse splenocytes and mouse myeloma Fox ny cells.
<b>Specificity:</b>	<p>This monoclonal antibody recognizes a protein with <math>M_r=24-25</math> kDa, identified as Grb2 (growth-factor receptor-bound protein 2), also known as ASH (abundant Src homology). Grb2 is an adaptor protein which has no enzymatic activity; however, Grb2 plays an important role in signaling cascades by physically linking other proteins through its phosphotyrosine-binding SH2 domain and its proline-binding SH3 domain. Grb2 associates with the guanine nucleotide exchange factor Sos via its SH3 domain. In response to cell stimulation with growth factors, growth factor receptors are autophosphorylated on cytoplasmic tyrosine residues. Grb2's association with these tyrosine residues via its SH2 domain permits the localization of Sos with the growth factor receptor near the cell membrane. Sos is then able to activate the membrane associated protein Ras which in turn activates the MAPK cascade and influences gene expression.</p> <p>Grb2 deletion studies indicate that the epitope for this antibody maps to amino acid residues 54-62. This antibody shows no cross-reactivity with other SH2/SH3 signaling intermediates.</p>
<b>Species Reactivity:</b>	Human, cow, mouse, rat, and <i>Xenopus</i> . Other species were not tested.
<b>Applications:</b>	This antibody is suitable for immunofluorescence, Western blot analysis, and immunohistology on acetone-fixed frozen and formalin-fixed/paraffin-embedded tissue sections. Staining of formalin/paraffin tissues requires boiling tissue sections in 10 mM citrate buffer, pH 6.0, for 10-20 minutes followed by cooling at room temperature for 20 minutes.

**This product is for research use only. Not for use in diagnostic procedures.**

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<b>Suggested Working Dilutions:</b>	For Western blotting, the recommended concentration is 1.0 µg/mL with an incubation of 2 hours at room temperature. For immunohistology, the recommended concentration is 1.0-2.0 µg/mL with an incubation of 30 minutes at room temperature. The optimal antibody concentration should be determined for each specific application.
<b>Recommended Positive Control:</b>	HeLa cells. Tonsil.
<b>Storage:</b>	Store at 2-8°C. For long term storage, apportion into working aliquots and store at -20°C. Avoid repeated freeze-thaw cycles to prevent denaturing the antibody.
<b>Expiration Date:</b>	Expires one year from date of receipt when stored as instructed.
<b>References:</b>	<p>Boulikas, T. (1995) Phosphorylation of transcription factors and control of the cell cycle. Crit. Rev. Eukar. Gene Expr. 5(1):1-77.</p> <p>Carraway, K.L., and C.A. Carraway (1995) Signaling, mitogenesis and the cytoskeleton; where the action is. BioEssays 17(2):171-175.</p> <p>Chardin, P., D. Cussac, S. Maignan, and A. Ducruiz (1995) The Grb2 adaptor. FEBS Lett. 369(1):47-51.</p> <p>Downward, J. (1994) The Grb2/Sem-5 adaptor protein. FEBS Lett. 338(2):113-117.</p> <p>Schlessinger, J. (1994) SH2/SH3 signaling proteins. Curr. Opin. Genetics Dev. 4(1):25-30.</p> <p>Scott, J.D. and T. Pawson (2000) Cell communication: The inside story. Sci. Am. June 2000:72-79.</p>

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