



Mouse (monoclonal) Anti-Human IGF-1R (α -Subunit)

PRODUCT ANALYSIS SHEET

Catalog Number:	AHR0321
Lot Number:	See product label
Quantity/Volume:	100 μ g/0.5 mL
Clone Number:	24-31
Isotype:	Mouse IgG1
Form of Antibody:	Purified immunoglobulin in phosphate buffered saline, pH 7.4, with 0.2% bovine serum albumin.
Preservation:	0.09% sodium azide (Caution: sodium azide is a poisonous and hazardous substance. Handle with care and dispose of properly.)
Purification:	Purified from ascites by Protein G affinity chromatography.
Immunogen:	IGF-1R/3T3 mouse fibroblasts transfected with human type 1 IGF-receptor cDNA.
Myeloma/Fusion Partners:	Produced by fusion between BALB/c mouse splenocytes and mouse myeloma NSO/1 cells.
Specificity:	<p>This monoclonal antibody recognizes a protein of $M_r=125$ kDa, identified as the α-subunit of type 1 insulin-like growth factor receptor (IGF-1R). As with the receptor for insulin, IGF-1R is synthesized as a single polypeptide which is glycosylated and proteolytically cleaved to yield a receptor composed of two α- and two β-subunits arranged in the following configuration: β-α-α-β. The α-subunits are entirely extracellular. The β-subunits each possess an extracellular domain, a single transmembrane domain, and a cytoplasmic tyrosine kinase domain which bears homology with other tyrosine kinases.</p> <p>The epitope recognized by this antibody is localized between amino acid residues 283-440 (exon 4-6). This antibody shows no cross-reactivity with insulin receptor (IR).</p>
Species Reactivity:	Human. Weakly reacts with rabbit. Does not react with rat. Other species were not tested.
Applications:	This antibody acts as a weak IGF-like agonist in bioassays in which stimulation of 3 H-thymidine incorporation into DNA is determined. This antibody is suitable for use in immunoprecipitation and also for use in immunohistochemistry with acetone-fixed frozen and formalin-fixed/paraffin-embedded tissue sections. Staining of formalin/paraffin tissues requires boiling tissue sections in EDTA for 10-20 minutes followed by cooling at room temperature for 20 minutes. Preparations from which the BSA has been omitted have been used successfully in ELISA as a capture antibody. This antibody does not significantly inhibit IGF-1 binding.

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Suggested Working Dilutions: For immunohistology, the recommended concentration is 2 - 4 µg/mL with an incubation of 30 minutes at room temperature. The optimal antibody concentration should be determined for each specific application.

Recommended Positive Control: Placenta or breast carcinoma.

Storage: Store at 2-8°C.

Expiration Date: See product label.

References: Schumacher, R., M.A. Soos, J. Schlessinger, D. Brandenburg, K. Siddle, and A. Ullrich (1993) Signaling-competent receptor chimeras allow mapping of major insulin receptor binding domain determinants. *J. Biol. Chem.* 268:1087-1094.














Soos, M.A., C.E. Field, R. Lammers, A. Ullrich, B. Zhang, R.A. Roth, A.S. Andersen, T. Kjeldsen, and K. Siddle (1992) A panel of monoclonal antibodies for the type 1 insulin-like growth factor receptor. Epitope mapping, effects on ligand binding, and biological activity. *J. Biol. Chem.* 267:12955-12963.

Soos, M.A., C.E. Field, and K. Siddle (1993) Purified hybrid insulin/insulin-like growth factor-1 receptors bind insulin-like growth factor-1, but not insulin, with high affinity. *Biochem. J.* 290:419-426.

Soos, M.A., B.T. Nave, and K. Siddle (1993) Immunological studies of type 1 IGF receptors and insulin receptors: characterization of hybrid and atypical receptor subtypes. *Adv. Exp. Med. Biol.* 343:145-157.

Takahashi, M.H., G.A. Thomas, and E.D. Williams (1995) Evidence for mutual interdependence of epithelium and stromal lymphoid cells in a subset of papillary carcinomas. *Br. J. Cancer* 72:813-817.

Explanation of symbols

Symbol	Description	Symbol	Description
	Catalogue Number		Batch code
	Research Use Only		<i>In vitro</i> diagnostic medical device
	Use by		Temperature limitation
	Manufacturer		European Community authorised representative
	Without, does not contain		With, contains
	Protect from light		Consult accompanying documents
	Directs the user to consult instructions for use (IFU), accompanying the product.		

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