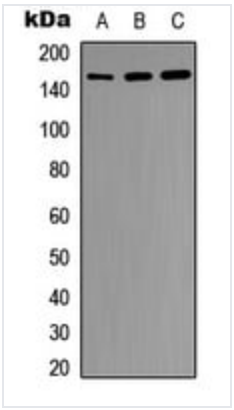
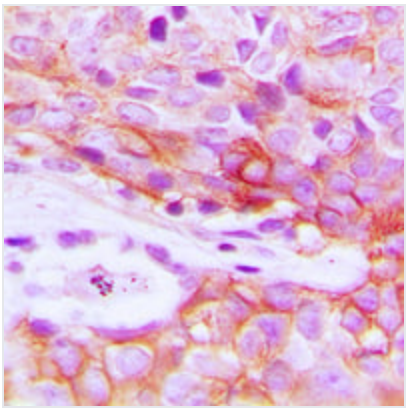
Insulin Receptor (INSR) Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

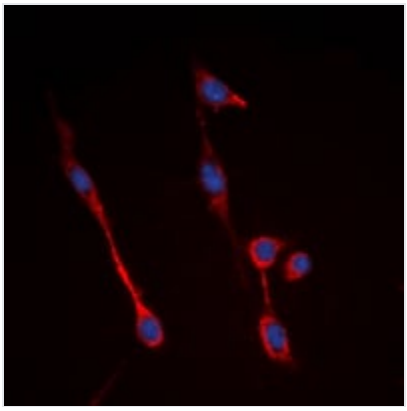
Product Name	Insulin Receptor (INSR), Polyclonal Antibody
Full Product Name	Rabbit anti-Insulin Receptor Antibody
Product Gene Name	anti-INSR antibody
Product Synonym Names	Insulin receptor; IR; CD220
Clonality	Polyclonal
Host	Rabbit
Species Reactivity	Human, Mouse
Form/Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Purity/Purification	The antibody was purified by immunogen affinity chromatography.
Concentration	1mg/mL (lot specific)
Preparation and Storage	Store at -20 degree C. Avoid repeated freeze/thaw cycles.
Molecular Weight	156,333 Da
Chromosome Location	Chromosome: 19; NC_000019.9 (7112266..7294011, complement). Location: 19p13.3-p13.2
OMIM	125853
3D Structure	ModBase 3D Structure for P06213
Immunogen	KLH-conjugated synthetic peptide encompassing a sequence within the C-term region of human Insulin Receptor. The exact sequence is proprietary.
Product Categories/Family for anti-INSR antibody	Primary antibodies
ISO Certification	Manufactured in an ISO 13485:2003 and EN ISO 13485:2012 Certified Laboratory.
Applications Tested/Suitable for anti-INSR antibody	Western Blot (WB), Immunohistochemistry (IHC), Immunofluorescence (IF), Immunochemistry (IC)
Application Notes for anti-INSR antibody	WB: 1:500-1:1000 IHC: 1:100-1:200 IF:IC: 1:100-1:500
Related Product Information for anti-INSR antibody	MBS4508910 is an antibody targeting INSR. Also known as Rabbit anti-Insulin Receptor Antibody. Reactive in Human, Mouse. Host: Rabbit.
Other Notes	Small volumes of anti-INSR antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.



Western Blot (WB) of anti-INSR antibody
Western blot analysis of Insulin Receptor expression in A549 (A), Hela (B), mouse brain (C) whole cell lysates.



Immunohistochemistry (IHC) of anti-INSR antibody
Immunohistochemical analysis of Insulin Receptor staining in human breast cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescence (IF) of anti-INSR antibody
Immunofluorescent analysis of Insulin Receptor staining in A549 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with a DyLight 594-conjugated secondary antibody (red) in PBS at room temperature in the dark. DAPI was used to stain the cell nuclei (blue).

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for INSR. It may not necessarily be applicable to this product.

NCBI GI #	119395736
NCBI GeneID	3643
NCBI Accession #	NP_000199.2
UniProt Primary Accession #	P06213
UniProt Secondary Accession #	P15208
UniProt Related Accession #	P06213
GenBank Nucleotide #	NM_000208.2
NCBI Official Full Name	insulin receptor isoform Long preproprotein
NCBI Official Synonym Full Names	insulin receptor
NCBI Official Symbol	INSR

NCBI Official Synonym Symbols	HHF5; CD220
UniProt Protein Name	Insulin receptor
Protein Family	Insulin receptor
UniProt Gene Name	INSR
UniProt Synonym Gene Names	IR
UniProt Entry Name	INSR_HUMAN
NCBI Protein Information	insulin receptor; IR
NCBI Summary for INSR	After removal of the precursor signal peptide, the insulin receptor precursor is post-translationally cleaved into two chains (alpha and beta) that are covalently linked. Binding of insulin to the insulin receptor (INSR) stimulates glucose uptake. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2008]

UniProt Comments for INSR	INSR: a receptor tyrosine kinase that mediates the pleiotropic actions of insulin. Binding of insulin leads to phosphorylation of several intracellular substrates, including, insulin receptor substrates (IRS1, 2, 3, 4), SHC, GAB1, CBL and other signaling intermediates. Each of these phosphorylated proteins serve as docking proteins for other signaling proteins that contain Src-homology-2 domains (SH2 domain) that specifically recognize different phosphotyrosines residues, including the p85 regulatory subunit of PI3K and SHP2. Phosphorylation of IRSs proteins lead to the activation of two main signaling pathways: the PI3K-AKT pathway, which is responsible for most of the metabolic actions of insulin, and the Ras-MAPK pathway, which regulates expression of some genes and cooperates with the PI3K pathway to control cell growth and differentiation. In addition to binding insulin, the insulin receptor can bind insulin-like growth factors (IGFI and IGFII). The holoenzyme is cleaved into two chains, the alpha and beta subunits. The active complex is a tetramer containing 2 alpha and 2 beta chains linked by disulfide bonds. The alpha chains constitute the ligand- binding domain, while the beta chains carry the kinase domain. Interacts with SORBS1 but dissociates from it following insulin stimulation. Familial mutations associated with insulin resistant diabetes, acanthosis nigricans, pineal hyperplasia, and polycystic ovary syndrome. SNP variants may be associated with polycystic ovary syndrome, atypical migraine and diabetic hyperlipidemia. Mutations also cause leprechaunism, a severe insulin resistance syndrome causing growth retardation and death in early infancy. Two isoforms of the human protein are produced by alternative splicing. The Short isoform has a higher affinity for insulin than the longer. Isoform Long and isoform Short are predominantly expressed in tissue targets of insulin metabolic effects: liver, adipose tissue and skeletal muscle but are also expressed in the peripheral nerve, kidney, pulmonary alveoli, pancreatic acini, placenta vascular endothelium, fibroblasts, monocytes, granulocytes, erythrocytes and skin. Isoform Short is preferentially expressed in fetal cells such as fetal fibroblasts, muscle, liver and kidney. Found as a hybrid receptor with IGF1R in muscle, heart, kidney, adipose tissue, skeletal muscle, hepatoma, fibroblasts, spleen and placenta. Overexpressed in several tumors, including breast, colon, lung, ovary, and thyroid carcinomas. Protein type: EC 2.7.10.1; Membrane protein, integral; Protein kinase, TK; Kinase, protein; Protein kinase, tyrosine (receptor); TK group; InsR family Chromosomal Location of Human Ortholog: 19p13.3-p13.2 Cellular Component: membrane; intracellular membrane-bound organelle; integral to plasma membrane; plasma membrane; endosome membrane; caveola; receptor complex Molecular Function: insulin binding; insulin-like growth factor receptor binding; protein binding; insulin-like growth factor I binding; GTP binding; protein-tyrosine kinase activity; insulin receptor substrate binding; PTB domain binding; phosphoinositide 3-kinase binding; receptor signaling protein tyrosine kinase activity; insulin-like growth factor II binding; ATP binding; insulin receptor activity Biological Process: heart morphogenesis; epidermis development; positive regulation of nitric oxide biosynthetic process; peptidyl-tyrosine phosphorylation; activation of MAPK activity; protein amino acid autophosphorylation; positive regulation of glycogen biosynthetic process; regulation of embryonic development; exocrine pancreas development; glucose homeostasis; positive regulation of glucose import; positive regulation of MAPKKK cascade; regulation of transcription, DNA-dependent; male sex determination; positive regulation of cell proliferation; protein heterotetramerization; positive regulation of developmental growth; positive regulation of mitosis; activation of protein kinase B; positive regulation of protein kinase B signaling cascade; G-protein coupled receptor protein signaling pathway; cellular response to insulin stimulus; carbohydrate metabolic process; positive regulation of glycolysis; insulin receptor signaling pathway; activation of protein kinase activity; positive regulation of protein amino acid phosphorylation; positive regulation of DNA replication; transformation of host cell by virus; positive regulation of cell migration Disease: Diabetes Mellitus, Insulin-resistant, With Acanthosis Nigricans; Hyperinsulinemic Hypoglycemia, Familial, 5; Pineal Hyperplasia, Insulin-resistant Diabetes Mellitus, And Somatic Abnormalities; Donohue Syndrome
Research Articles on INSR	**1.** Insulin receptor isoform A to B ratio was significantly higher in cancer as well as in tumor adjacent benign prostate tissue compared to purely benign prostates
Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.

Disclaimer	While every efforts were made to ensure the accuracy of the information provided in this datasheet, MyBioSource will not be liable for any omissions or errors contained herein. MyBioSource reserves the right to make changes to this datasheet at any time without prior notice. It is the responsibility of the customer to report product performance issues to MyBioSource within 30 days of receipt of the product. Please visit our Terms & Conditions page for more information.
Product Note	Select online data sheet information is drawn from bioinformatics databases, occasionally resulting in ambiguous or non-relevant product information. It is the responsibility of the customer to review, verify, and evaluate the information to make sure it matches their requirements before purchasing the kit. Our ELISA Kit assays are dynamic research tools and sometimes they may be updated and improved. If the format of this assay is important to you then please request the current manual or contact our technical support team with a presales inquiry before placing an order. We will confirm the current details of the assay. We cannot guarantee the sample manual posted online is the most current manual, it is intended to serve as an example only. Please refer to the instructions For Use provided with the assay kit for precise details.

For Research Use Only. Not for use in diagnostic or therapeutic procedures.

MyBioSource | Tel: +1.858.633.0165 | Fax: +1.858.633.0166 | mybiosource.com/contact-us
Online datasheet: https://www.mybiosource.com/polyclonal-human-mouse-antibody/insulin-receptor/4508910