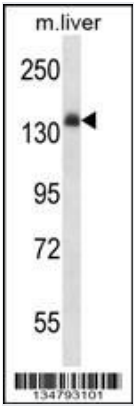
INSR Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	Insr, Polyclonal Antibody
Full Product Name	Insr, ID (Insr, Insulin receptor, CD220, Insulin receptor subunit alpha, Insulin receptor subunit beta) (Azide free) (HRP)
Product Gene Name	anti-Insr antibody
Product Synonym Names	Insr; Insulin receptor; CD220; Insulin receptor subunit alpha; Insulin receptor subunit beta
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Mouse
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with Horseradish Peroxidase (HRP).
Purity/Purification	Purified by Protein A Affinity Chromatography.
Preparation and Storage	Store product at 4 degree C if to be used immediately within two weeks. For long-term storage, aliquot to avoid repeated freezing and thawing and store at -20 degree C. Aliquots are stable at -20 degree C for 12 months after receipt. Dilute required amount only prior to immediate use. Further dilutions can be made in assay buffer. Note: Sodium azide is a potent inhibitor of peroxidase and should not be added to HRP conjugates. For maximum recovery of product, centrifuge the original vial after thawing and prior to removing the cap.
Molecular Weight	155,610 Da
3D Structure	ModBase 3D Structure for P15208
Immunogen	Mouse Insr antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 545-574 amino acids from the Central region of Mouse Insr.
Conjugate	HRP
Note	Preservative Free
Product Categories/Family for anti-Insr antibody	Antibodies; CD Markers
Applications Tested/Suitable for anti-Insr antibody	Western Blot (WB), ELISA (EIA)
Application Notes for anti-Insr antibody	WB: 1:100-500 ELISA: 1:1,000 Applications are based on unconjugated antibody.
Related Product Information for anti-Insr antibody	This receptor binds insulin and has a tyrosine-protein kinase activity. When present in a hybrid receptor with IGF1R, binds IGF1.
Product References and Citations for anti-Insr antibody	Brothers, K.J., et al. Cell Metab. 12(3):295-305(2010). Divall, S.A., et al. J. Clin. Invest. 120(8):2900-2909(2010). Fulzele, K., et al. Cell 142(2):309-319(2010). Ferron, M., et al. Cell 142(2):296-308(2010). Ulanet, D.B., et al. Proc. Natl. Acad. Sci. U.S.A. 107(24):10791-10798(2010).
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.
Searchable Terms for Insr purchase	MBS6310623 is an antibody targeting Insr. Also known as Insr, ID (Insr, Insulin receptor, CD220, Insulin receptor subunit alpha, Insulin receptor subunit beta) (Azide free) (HRP). Reactive in Mouse. Host: Rabbit.



Western Blot (WB) of anti-Insr antibody
Mouse Insr Antibody (Center) western blot analysis in mouse liver tissue lysates (35ug/lane).This demonstrates the Insr antibody detected the Insr protein (arrow).

ADDITIONAL DETAILS

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

NCBI GI #	157057178
NCBI GeneID	16337
NCBI Accession #	NP_034698.2
UniProt Primary Accession #	P15208
UniProt Secondary Accession #	F8VPU4
UniProt Related Accession #	P15208
GenBank Nucleotide #	NM_010568.2
NCBI Official Full Name	insulin receptor
NCBI Official Synonym Full Names	insulin receptor
NCBI Official Symbol	Insr
NCBI Official Synonym Symbols	IR; IR-A; IR-B; CD220; 4932439J01Rik; D630014A15Rik
UniProt Protein Name	Insulin receptor
UniProt Synonym Protein Names	CD_antigen: CD220
Protein Family	Insulin receptor
UniProt Gene Name	Insr
UniProt Synonym Gene Names	IR
UniProt Entry Name	INSR_MOUSE
NCBI Protein Information	insulin receptor

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; Protein kinase, TK; Kinase, protein; Membrane protein, integral; Protein kinase, tyrosine (receptor); TK group; InsR family Cellular Component: membrane; intracellular membrane-bound organelle; integral to plasma membrane; integral to membrane; plasma membrane; synapse; caveola; nucleus; cytosol; endosome; receptor complex Molecular Function: protein domain specific binding; GTP binding; PTB domain binding; nucleotide binding; transmembrane receptor protein tyrosine kinase activity; receptor signaling protein tyrosine kinase activity; insulin-like growth factor II binding; protein kinase binding; protein phosphatase binding; lipoic acid binding; protein kinase activity; transferase activity; insulin binding; insulin-like growth factor receptor binding; protein binding; insulin-like growth factor I binding; insulin receptor substrate binding; 3-phosphoinositide-dependent protein kinase binding; protein-tyrosine kinase activity; transferase activity, transferring phosphorus-containing groups; protein complex binding; phosphoinositide 3-kinase binding; kinase activity; 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; protein amino acid phosphorylation; positive regulation of glucose import; positive regulation of MAPKKK cascade; negative regulation of protein amino acid phosphorylation; regulation of transcription, DNA-dependent; male sex determination; positive regulation of cell proliferation; protein heterotetramerization; regulation of hydrogen peroxide metabolic process; 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; organ morphogenesis; cellular response to insulin stimulus; positive regulation of glycolysis; activation of protein kinase activity; insulin receptor signaling pathway; positive regulation of protein amino acid phosphorylation; phosphorylation; negative regulation of transporter activity; positive regulation of DNA replication; positive regulation of phosphorylation; transmembrane receptor protein tyrosine kinase signaling pathway; transformation of host cell by virus; positive regulation of cell migration
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