Phospho-IRS1 (Tyr989) Blocking Peptide – The purity is >90%,tested by HPLC and MS. Purity

PRODUCT OVERVIEW

Product Name	IRS1, Blocking Peptide
Full Product Name	Phospho-IRS1 (Tyr989) Blocking Peptide
Product Gene Name	IRS1 blocking peptide
Product Synonym Names	HIRS 1; HIRS1; Insulin receptor substrate 1; IRS 1; IRS-1; IRS1; IRS1_HUMAN; OTTHUMP00000164234
Form/Format	Synthetic peptide was lyophilized with 100% acetonitrile and is supplied as a powder. Reconstitute with 0.1 ml DI water for a final concentration of 10 mg/ml.
Purity/Purification	The purity is >90%,tested by HPLC and MS.
Preparation and Storage	Maintain refrigerated at 2-8 degree C for up to 6 months. For long term storage store at -20 degree C.
Antibody/Peptide Pairs	IRS1 (Tyr989) peptide (MBS9616156) is used for blocking the activity of IRS1 (Tyr989) antibody (MBS9612875)
Molecular Weight	131,591 Da
Chromosome Location	Chromosome: 2; NC_000002.11 (227596033..227663506, complement). Location: 2q36
OMIM	125853
Supply Chain Verification	Manufactured in a lab with traceable raw materials manufactured on site. Coordinated product portfolio of antibodies, pairs, conjugates, recombinant proteins, and immunoassay materials available, please inquire.
Notes	For phospho antibody, we provide phospho peptide (0.5mg) and non-phospho peptide (0.5mg)
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for IRS1 blocking peptide	Blocking/Control
Related Product Information for IRS1 blocking peptide	Blocking peptides are peptides that bind specifically to the target antibody and block antibody binding. These peptide usually contains the epitope recognized by the antibody. Antibodies bound to the blocking peptide no longer bind to the epitope on the target protein. This mechanism is useful when non-specific binding is an issue, for example, in Western blotting (immunoblot) and immunohistochemistry (IHC). By comparing the staining from the blocked antibody versus the antibody alone, one can see which staining is specific; Specific binding will be absent from the western blot or immunostaining performed with the neutralized antibody.
Other Notes	Small volumes of IRS1 blocking peptide 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 IRS1 purchase	MBS9616156 is a blocking peptide targeting IRS1. Also known as Phospho-IRS1 (Tyr989) Blocking Peptide.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for IRS1. It may not necessarily be applicable to this product.

NCBI GI #	5031805
NCBI GeneID	3667
NCBI Accession #	NP_005535.1
UniProt Primary Accession #	P35568

UniProt Related Accession #	P35568
GenBank Nucleotide #	NM_005544.2
NCBI Official Full Name	insulin receptor substrate 1
NCBI Official Synonym Full Names	insulin receptor substrate 1
NCBI Official Symbol	IRS1
NCBI Official Synonym Symbols	HIRS-1
UniProt Protein Name	Insulin receptor substrate 1
Protein Family	Isoleucine--tRNA ligase
UniProt Gene Name	IRS1
UniProt Synonym Gene Names	IRS-1
UniProt Entry Name	IRS1_HUMAN
NCBI Protein Information	insulin receptor substrate 1; IRS-1
NCBI Summary for IRS1	This gene encodes a protein which is phosphorylated by insulin receptor tyrosine kinase. Mutations in this gene are associated with type II diabetes and susceptibility to insulin resistance. [provided by RefSeq, Nov 2009]
UniProt Comments for IRS1	IRS1: an adaptor protein that is one of the major substrates of the insulin receptor kinase. Contains multiple tyrosine phosphorylation motifs that serve as docking sites for SH2-domain-containing proteins including phosphatidylinositol 3-kinase p85 subunit and GRB-2. Phosphorylated on ser/thr residues by kinases including JNK and IKK. Protein type: Adaptor/scaffold; Motility/polarity/chemotaxis Chromosomal Location of Human Ortholog: 2q36 Cellular Component: intracellular membrane-bound organelle; cytoplasm; plasma membrane; caveola; nucleus; cytosol Molecular Function: insulin-like growth factor receptor binding; protein binding; signal transducer activity; protein kinase C binding; phosphoinositide 3-kinase binding; SH2 domain binding; transmembrane receptor protein tyrosine kinase adaptor protein activity; insulin receptor binding Biological Process: response to peptide hormone stimulus; phosphoinositide 3-kinase cascade; nerve growth factor receptor signaling pathway; positive regulation of glycogen biosynthetic process; negative regulation of insulin receptor signaling pathway; glucose homeostasis; signal transduction; response to insulin stimulus; negative regulation of insulin secretion; positive regulation of glucose import; mammary gland development; positive regulation of mesenchymal cell proliferation; positive regulation of cell proliferation; protein kinase B signaling cascade; epidermal growth factor receptor signaling pathway; fibroblast growth factor receptor signaling pathway; phosphoinositide-mediated signaling; positive regulation of phosphoinositide 3-kinase activity; positive regulation of fatty acid beta-oxidation; cellular response to insulin stimulus; insulin-like growth factor receptor signaling pathway; regulation of gene expression; insulin receptor signaling pathway; innate immune response; positive regulation of insulin receptor signaling pathway; lipid catabolic process; positive regulation of cell migration Disease: Diabetes Mellitus, Noninsulin-dependent
Research Articles on IRS1	**1.** The T allele of rs2943641 near IRS1 may associate with lower cancer incidence in morbidly obese individuals.
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