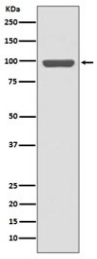
Insulin Receptor Antibody GGA-9 / INSR Monoclonal Antibody [clone GGA-9] (RQ5135)

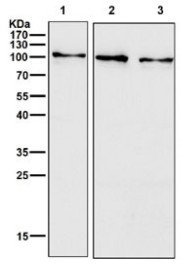
Catalog No.	Formulation	Size
RQ5135	Antibody in PBS with 0.02% sodium azide, 50% glycerol and 0.4-0.5mg/ml BSA	100 ul

Bulk quote request

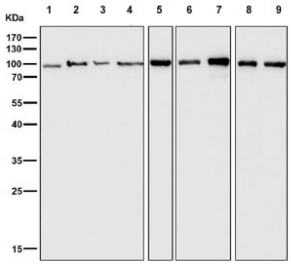
Availability	1-2 weeks
Species Reactivity	Human, Rat
Format	Purified
Host	Rabbit
Clonality	Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	GGA-9
Purity	Affinity purified
UniProt	P06213
Applications	Western blot: 1:1000-1:2000 Immunofluorescence: 1:50-1:200
Limitations	This Insulin Receptor Antibody GGA-9 / INSR Monoclonal Antibody is available for research use only.



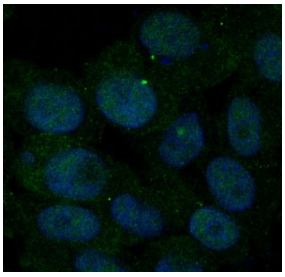
Insulin Receptor Antibody GGA-9 Detection in HeLa Cells by WB. Western blot testing of human HeLa cell lysate with Insulin Receptor Antibody (clone GGA-9) shows a strong, discrete band at approximately 95 kDa. This corresponds closely to the expected molecular weight of the processed INSR beta subunit, while the ~156 kDa receptor precursor is not prominent in this preparation. The low background and dominant band demonstrate detection of endogenous insulin receptor protein in HeLa cells using this INSR Monoclonal Antibody.



Insulin Receptor Antibody GGA-9 Detection in HeLa, HepG2 and MCF7 Cells by WB. Western blot testing with Insulin Receptor Antibody (clone GGA-9) shows a prominent band near 95 kDa in human HeLa (lane 1), HepG2 (lane 2), and MCF7 (lane 3) cell lysates. The observed migration is consistent with the processed INSR beta subunit rather than the ~156 kDa precursor. Similar detection across all three lysates demonstrates recognition of endogenous insulin receptor protein in multiple human cell lines using this INSR Monoclonal Antibody.



Insulin Receptor Antibody GGA-9 Detection in Mouse and Rat Tissues by WB. Western blot testing with Insulin Receptor Antibody (clone GGA-9) shows a predominant band near 95 kDa in mouse liver (lane 1), spleen (lane 2), lung (lane 3), kidney (lane 4), and skin (lane 5), and rat liver (lane 6), spleen (lane 7), lung (lane 8), and brain (lane 9) tissue lysates. The observed molecular weight corresponds closely to the processed INSR beta subunit. Consistent detection across the tissue panel demonstrates recognition of endogenous insulin receptor protein using this INSR Monoclonal Antibody.



Insulin Receptor Antibody GGA-9 Detection in Human BxPC-3 Pancreatic Cancer Cells by IF. Immunofluorescence staining of FFPE human BxPC-3 pancreatic adenocarcinoma cells with Insulin Receptor Antibody (clone GGA-9) shows green INSR-associated fluorescence with a diffuse and punctate cellular distribution, while nuclei are counterstained blue with DAPI. HIER was performed by steaming in pH 6 citrate buffer for 20 min. The staining demonstrates detection of insulin receptor protein in BxPC-3 cells using this INSR Monoclonal Antibody.

Description

Insulin Receptor Antibody GGA-9 recognizes the insulin receptor (INSR), a transmembrane receptor tyrosine kinase that mediates the biological effects of insulin. INSR is synthesized as a single precursor that undergoes proteolytic processing to generate extracellular alpha and transmembrane beta subunits. These subunits assemble through disulfide bonds to form the mature heterotetrameric receptor. The alpha subunits participate in insulin binding, while the beta subunits contain the intracellular tyrosine kinase domains responsible for initiating receptor signaling.

Binding of insulin induces conformational changes in INSR that activate its intrinsic kinase activity and promote phosphorylation of receptor substrates. Downstream signaling involves pathways including PI3K-AKT and RAS-MAPK, connecting insulin receptor activation with glucose transport, glycogen synthesis, lipid and protein metabolism, cellular growth, and survival. Through these signaling networks, INSR has a central role in maintaining metabolic homeostasis and coordinating cellular responses to circulating insulin.

Altered insulin receptor expression and signaling are extensively investigated in metabolic disease and insulin resistance. Pathogenic variants in INSR can cause inherited insulin resistance syndromes, including Donohue syndrome, Rabson-Mendenhall syndrome, and type A insulin resistance syndrome. Insulin receptor signaling is also studied in cancer biology because metabolic and mitogenic pathways downstream of INSR can influence cell proliferation, survival, and nutrient utilization. Alternative splicing produces receptor isoforms that differ in their ligand-binding and signaling properties.

Clone GGA-9 is a rabbit monoclonal antibody generated against a synthetic peptide specific to human INSR. This INSR Monoclonal Antibody provides a defined reagent for investigating insulin receptor expression and complements antibodies directed toward specific regions or subunits of the receptor. NSJ Bioreagents supplies clone GGA-9 for research use only.

An Insulin Receptor Antibody can be used to investigate INSR expression and its relationship to insulin signaling, glucose homeostasis, metabolic regulation, insulin resistance, receptor tyrosine kinase signaling, and disease biology.

Explore our Signal Transduction Antibodies page for additional antibodies targeting receptors and signaling proteins involved in cellular responses to extracellular signals.

Application Notes

Optimal dilution of the Insulin Receptor Antibody GGA-9 / INSR Monoclonal Antibody should be determined by the researcher.

Immunogen

A synthetic peptide specific to human Insulin Receptor / INSR was used as the immunogen for the Insulin Receptor Antibody GGA-9.

Storage

Store the Insulin Receptor Antibody GGA-9 at -20oC.

Alternate Names

INSR antibody, insulin receptor monoclonal antibody, CD220 antibody, insulin receptor tyrosine kinase antibody

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