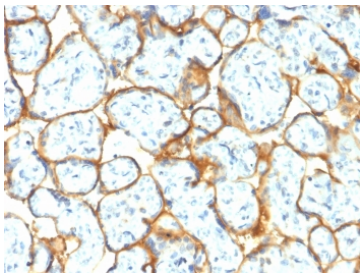
Insulin Receptor Alpha Antibody INSR/2277R / INSR Alpha Antibody [clone INSR/2277R] (V3586)

Catalog No.	Formulation	Size
V3586-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V3586-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V3586SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V3586IHC-7ML	Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only*	7 ml

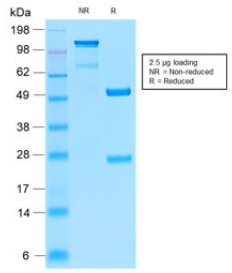
Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG, kappa
Clone Name	INSR/2277R
Purity	Protein A affinity chromatography
UniProt	P06213
Localization	Cytoplasm, cell membrane
Applications	Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT
Limitations	This Insulin Receptor Alpha Antibody INSR/2277R / INSR Alpha Antibody is available for research use only.



Insulin Receptor Alpha Antibody INSR/2277R Staining in Human Placenta by IHC. Immunohistochemistry staining of FFPE human placenta using Insulin Receptor Alpha Antibody (clone INSR/2277R) shows strong brown immunoreactivity in trophoblastic cells lining the chorionic villi, with substantially weaker staining in the villous stromal regions. HIER was performed by boiling tissue sections in 10mM citrate buffer, pH 6, for 10-20 min followed by cooling at RT for 20 min. The distinct trophoblastic staining demonstrates detection of the extracellular insulin receptor alpha subunit in human placental tissue using this INSR Alpha Antibody.



Insulin Receptor Alpha Antibody INSR/2277R Purity and Integrity by SDS-PAGE. SDS-PAGE analysis of purified, BSA-free Insulin Receptor Alpha Antibody (clone INSR/2277R) shows an intact antibody band at approximately 150 kDa under non-reducing conditions. Under reducing conditions, distinct immunoglobulin heavy and light chains are visible at approximately 50 kDa and 25 kDa, respectively. The expected non-reduced and reduced migration patterns support the integrity and purity of this recombinant INSR Alpha Antibody preparation.

Description

Insulin Receptor Alpha Antibody INSR/2277R recognizes the alpha subunit of the insulin receptor (INSR), a transmembrane receptor tyrosine kinase that mediates the biological effects of insulin. INSR is synthesized as a single precursor protein that undergoes glycosylation and proteolytic processing to generate alpha and beta subunits. These chains remain linked by disulfide bonds and assemble into the mature heterotetrameric receptor. The alpha subunits are located extracellularly and participate in ligand binding, while the beta subunits span the plasma membrane and contain the intracellular tyrosine kinase domains.

Insulin binding to the extracellular portion of INSR induces conformational changes that activate kinase activity within the beta subunits. Subsequent phosphorylation events recruit insulin receptor substrates and activate signaling networks including the PI3K-AKT and RAS-MAPK pathways. These pathways connect insulin receptor activation with glucose uptake, glycogen synthesis, lipid and protein metabolism, cellular growth, and survival, making INSR a central regulator of metabolic homeostasis.

Altered insulin receptor expression and signaling are investigated extensively in metabolic disease and insulin resistance. Pathogenic INSR variants can produce severe inherited disorders of insulin action, including Donohue syndrome, Rabson-Mendenhall syndrome, and type A insulin resistance syndrome. INSR signaling is also studied in cancer biology because receptor-mediated metabolic and mitogenic pathways can influence proliferation, survival, and nutrient utilization. Alternative splicing generates receptor isoforms with differences in ligand recognition and signaling behavior.

Clone INSR/2277R is a recombinant rabbit monoclonal antibody generated against a recombinant fragment corresponding to approximately amino acids 140-301 of human INSR. This region lies within the extracellular alpha subunit of the receptor, supporting the alpha-chain specificity of this INSR Alpha Antibody. NSJ Bioreagents supplies clone INSR/2277R for research use only.

An Insulin Receptor Alpha Antibody can be used to investigate the extracellular alpha subunit of INSR and its relationship to insulin recognition, receptor biology, metabolic regulation, insulin resistance, and insulin-responsive signaling.

For a monoclonal antibody with broader Western blot and immunofluorescence validation, see our Insulin Receptor Antibody GGA-9 / INSR Monoclonal Antibody page.

Application Notes

Optimal dilution of the Insulin Receptor Alpha Antibody INSR/2277R / INSR Alpha Antibody should be determined by the

researcher.

1. The prediluted format is supplied in a dropper bottle and is optimized for use in IHC. After epitope retrieval step (if required), drip mAb solution onto the tissue section and incubate at RT for 30 min.

Immunogen

A recombinant partial protein from the extracellular region of the protein was used as the immunogen for the Insulin Receptor Alpha Antibody INSR/2277R.

Storage

Store the Insulin Receptor Alpha Antibody INSR/2277R at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

INSR alpha antibody, insulin receptor alpha subunit antibody, insulin receptor alpha chain antibody, CD220 alpha antibody

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