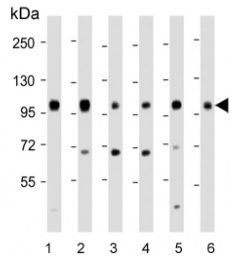
IGF1 Receptor Antibody / CD221 Antibody (F54940)

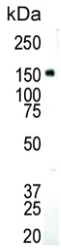
Catalog No.	Formulation	Size
F54940-0.4ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.4 ml
F54940-0.08ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.08 ml

Bulk quote request

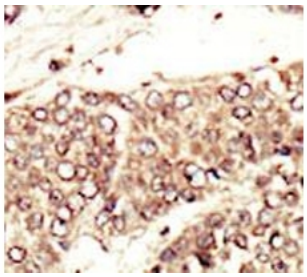
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Purity	Purified
UniProt	P08069
Applications	Immunohistochemistry (FFPE): 1:50-1:100 Western blot: 1:500-1:1000
Limitations	This IGF1 Receptor Antibody / CD221 Antibody is available for research use only.



IGF1 Receptor Antibody in Human Mouse and Rat Samples WB. Western blot testing of human 293T, human A431, mouse C2C12, rat C6, human HeLa, and mouse NIH 3T3 cell lysates with IGF1 Receptor Antibody detects a prominent band at approximately 95-100 kDa across all six samples. Additional bands are visible near approximately 65-70 kDa and at higher molecular weights in several lanes. IGF1R is synthesized as a glycosylated precursor and proteolytically processed into alpha and beta subunits, contributing to multiple molecular forms detectable by Western blot.



IGF1 Receptor Antibody in Human SK-BR-3 Breast Cancer Cells WB. Western blot testing of human SK-BR-3 breast cancer cell lysate with IGF1 Receptor Antibody detects a distinct high-molecular-weight band at approximately 150 kDa. The observed size falls within the range expected for processed and glycosylated forms of IGF1R, which is synthesized as a larger precursor before cleavage into alpha and beta subunits.



CD221 Antibody Staining in Human Cancer Tissue IHC. Immunohistochemistry of FFPE human cancer tissue using CD221 Antibody demonstrates brown staining concentrated along cell membranes with accompanying cytoplasmic reactivity in tumor cells. Heat-induced epitope retrieval was performed by steaming sections in pH 6 citrate buffer for 20 min followed by cooling prior to staining.

Description

IGF1 Receptor Antibody recognizes insulin-like growth factor 1 receptor (IGF1R), a transmembrane receptor tyrosine kinase involved in cellular responses to insulin-like growth factors. Also known as CD221, IGF1R belongs to the insulin receptor subfamily of receptor tyrosine kinases. The receptor is synthesized as a single precursor that undergoes proteolytic processing to generate alpha and beta subunits. Two extracellular alpha chains and two membrane-spanning beta chains associate through disulfide bonds to form the mature heterotetrameric receptor.

IGF1 binds IGF1R with high affinity, promoting receptor activation and autophosphorylation of tyrosine residues within the intracellular kinase domains. Activated receptor complexes recruit and phosphorylate signaling proteins such as insulin receptor substrates and SHC proteins. These interactions connect CD221 to downstream signaling pathways that regulate proliferation, survival, metabolism, differentiation, and protein synthesis. IGF1R can also interact with IGF2 and participate in hybrid receptor complexes with the structurally related insulin receptor.

Major signaling pathways activated downstream of IGF1R include PI3K-AKT and RAS-MAPK. Through these signaling networks, the receptor participates in normal growth and development as well as the regulation of cellular survival. Dysregulation of IGF signaling has also made IGF1R an extensively investigated receptor in cancer research, where changes in receptor abundance or pathway activity may influence tumor cell proliferation, survival, migration, and responses to other signaling inputs.

This rabbit polyclonal antibody was generated against a C-terminal region of human IGF1R encompassing amino acids 1335-1366, providing a different immunogen location from antibodies directed against extracellular regions of the receptor. NSJ Bioreagents supplies this reagent for research investigating CD221 expression and insulin-like growth factor signaling. An IGF1 Receptor Antibody can support studies examining receptor expression and the signaling mechanisms associated with cellular growth, survival, and metabolism.

For a monoclonal option with Protein Microarray Validated specificity, see our IGF1R Antibody IGF1R/4667 / Insulin-Like Growth Factor 1 Receptor Antibody page.

Application Notes

The stated application concentrations are suggested starting points. Titration of the IGF1 Receptor Antibody / CD221 Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

A portion of amino acids 1335-1366 from the human protein was used as the immunogen for the IGF1 Receptor antibody.

Storage

Aliquot the IGF1 Receptor antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

IGF1R antibody, Insulin-like growth factor 1 receptor antibody, IGF1 receptor antibody, IGF-1 receptor antibody, IGF-I receptor antibody, CD221 antibody, JTK13 antibody

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