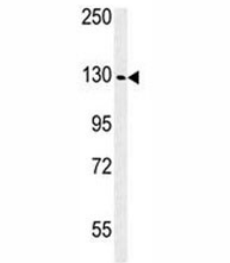
Insulin-Like Growth Factor I Receptor Antibody / IGF-I Receptor Antibody (F50634)

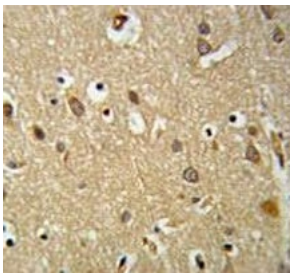
Catalog No.	Formulation	Size
F50634-0.4ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.4 ml
F50634-0.08ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.08 ml

Bulk quote request

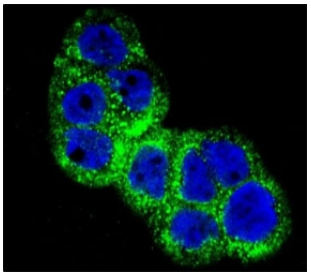
Availability	1-3 business days
Species Reactivity	Human
Predicted Reactivity	Mouse, Rat
Format	Purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Purity	Purified
UniProt	P08069
Applications	Western blot: 1:1000 IHC (Paraffin): 1:50-1:100 Flow Cytometry: 1:10-1:50 Immunofluorescence: 1:10-1:50
Limitations	This Insulin-Like Growth Factor I Receptor Antibody / IGF-I Receptor Antibody is available for research use only.



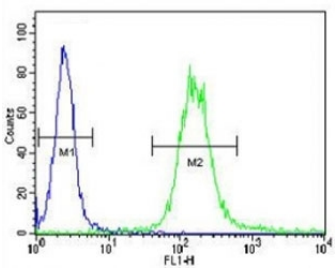
Insulin-Like Growth Factor I Receptor Antibody in WiDr Cells WB. Western blot testing of WiDr cell lysate with Insulin-Like Growth Factor I Receptor Antibody detects a distinct band at approximately 130 kDa. The observed band is consistent with the mature IGF1R alpha subunit, which is expected at approximately 120-130 kDa following proteolytic processing of the approximately 200 kDa receptor precursor. The blot shows a relatively discrete signal with little visible background.



Insulin-Like Growth Factor I Receptor Antibody in Human Brain IHC. Immunohistochemistry of formalin-fixed, paraffin-embedded human brain tissue using Insulin-Like Growth Factor I Receptor Antibody demonstrates brown staining in neuronal cells, with signal visible in the cytoplasm and extending into neuronal processes. The surrounding neuropil shows lighter diffuse staining, while nuclei are predominantly counterstained.



IGF-I Receptor Antibody Staining in WiDr Colon Adenocarcinoma Cells IF. Immunofluorescence analysis of WiDr human colon adenocarcinoma cells using IGF-I Receptor Antibody demonstrates prominent green fluorescence with a predominantly cytoplasmic and perinuclear distribution. Alexa Fluor 488-conjugated goat anti-rabbit IgG was used for detection, and nuclei were counterstained with DAPI (blue).



IGF-I Receptor Antibody in WiDr Colon Adenocarcinoma Cells FACS. Flow cytometry analysis of WiDr human colon adenocarcinoma cells using IGF-I Receptor Antibody demonstrates a clear rightward fluorescence shift in the antibody-stained population (green) compared with the negative control (blue), indicating specific detection of IGF1R. FITC-conjugated goat anti-rabbit secondary antibody was used for detection.

Description

Insulin-Like Growth Factor I Receptor Antibody recognizes IGF1R, a transmembrane receptor tyrosine kinase that mediates the biological effects of insulin-like growth factors. IGF1R, also known as CD221, belongs to the insulin receptor subfamily and is synthesized as a precursor that is processed into alpha and beta subunits. The mature receptor forms a disulfide-linked heterotetramer containing two extracellular alpha chains involved in ligand binding and two membrane-spanning beta chains containing the intracellular tyrosine kinase domains.

IGF1R binds IGF1 with high affinity and also interacts with IGF2 and insulin with lower affinity. Ligand binding activates the receptor kinase and promotes autophosphorylation of intracellular tyrosine residues. Activated IGF1R subsequently phosphorylates signaling adaptor proteins, including members of the insulin receptor substrate family and SHC proteins. These events connect IGF-I receptor activation with major intracellular signaling cascades that regulate cellular proliferation, survival, metabolism, and protein synthesis.

Two major pathways downstream of IGF1R are the PI3K-AKT and RAS-MAPK signaling cascades. PI3K-AKT signaling contributes to cell survival and metabolic regulation, while RAS-MAPK signaling is closely associated with proliferation and differentiation. IGF1R can also form hybrid receptors with the insulin receptor, providing additional integration between insulin and insulin-like growth factor signaling. Because of these functions, altered IGF1R expression and signaling have been extensively investigated in cancer biology, developmental biology, metabolism, and mechanisms controlling cellular growth.

The IGF-I Receptor Antibody is a rabbit polyclonal generated against a region within amino acids 51-77 of the human protein. This N-terminal region lies within the extracellular portion of the receptor, providing a distinct immunogen location for studies of IGF1R expression. NSJ Bioreagents supplies this antibody for research use in studies of insulin-like growth factor receptor biology and associated signaling mechanisms. An Insulin-Like Growth Factor I Receptor Antibody can support investigation of IGF1R expression in research examining growth factor signaling, proliferation, survival, and cellular regulation.

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

Titration of the Insulin-Like Growth Factor I Receptor Antibody / IGF-I Receptor Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

A portion of amino acids 51-77 from the human protein was used as the immunogen for this Insulin-Like Growth Factor I Receptor Antibody.

Storage

Aliquot the Insulin-Like Growth Factor I 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, Insulin-like growth factor I receptor antibody, IGF-I receptor antibody, IGF1 receptor antibody, IGF-1 receptor antibody, CD221 antibody, JTK13 antibody

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