IGF1R Antibody IGF1R/4667 / Insulin-Like Growth Factor 1 Receptor Antibody [clone IGF1R/4667] (V8864)

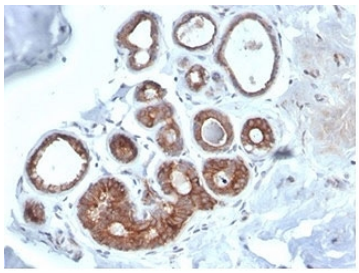
Catalog No.	Formulation	Size
V8864-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V8864-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V8864SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

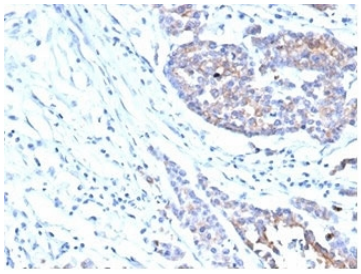
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2c, kappa
Clone Name	IGF1R/4667
Purity	Protein A/G affinity
UniProt	P08069
Localization	Cell membrane, cytoplasmic
Applications	Immunohistochemistry (FFPE): 1-2ug/ml
Limitations	This IGF1R Antibody IGF1R/4667 is available for research use only.



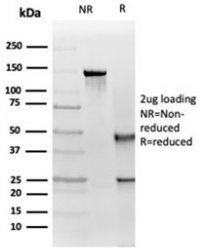
IGF1R Antibody Staining in Human Prostate Carcinoma IHC. Immunohistochemistry of FFPE human prostate carcinoma tissue using IGF1R antibody clone IGF1R/4667 shows strong brown staining in the epithelial tumor cells, with prominent membranous and cytoplasmic signal. Surrounding stromal tissue shows comparatively little staining, providing good contrast with the positively stained carcinoma. Heat-induced epitope retrieval was performed by boiling sections in 10 mM Tris with 1 mM EDTA, pH 9, for 20 min followed by cooling before testing.



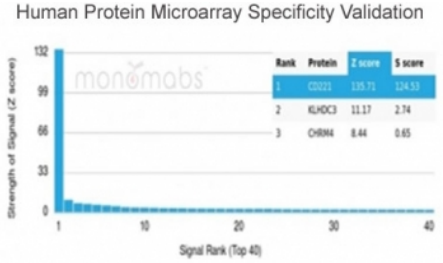
IGF1R Antibody Staining in Human Breast Carcinoma IHC. Immunohistochemistry of FFPE human breast carcinoma tissue using IGF1R antibody clone IGF1R/4667 shows strong brown staining of glandular carcinoma structures. Signal is prominent along the cell membranes with accompanying cytoplasmic staining, while the surrounding stromal tissue exhibits substantially weaker reactivity. Heat-induced epitope retrieval was performed by boiling sections in 10 mM Tris with 1 mM EDTA, pH 9, for 20 min followed by cooling before testing.



IGF1R Antibody Staining in Human Colon Carcinoma IHC. Immunohistochemistry of FFPE human colon carcinoma tissue using IGF1R antibody clone IGF1R/4667 demonstrates brown staining within tumor cell clusters, with predominantly cytoplasmic and membranous reactivity. The surrounding stromal compartment shows comparatively limited staining, helping delineate the positive carcinoma cells. Heat-induced epitope retrieval was performed by boiling sections in 10 mM Tris with 1 mM EDTA, pH 9, for 20 min followed by cooling before testing.



Purified IGF1R/4667 Monoclonal Antibody SDS-PAGE. SDS-PAGE analysis of purified, BSA-free IGF1R antibody clone IGF1R/4667 under non-reducing (NR) and reducing (R) conditions. A predominant band is visible at approximately 140-150 kDa under non-reducing conditions, consistent with intact mouse IgG, while reduction produces a prominent band near 25 kDa corresponding to the immunoglobulin light chain; the heavy-chain region is also visible near 50 kDa. Two micrograms of purified antibody were loaded per lane. The profile supports the integrity and purity of the monoclonal antibody preparation.



Protein Microarray Validated IGF1R Antibody Specificity. HuProt protein microarray analysis of IGF1R antibody clone IGF1R/4667 against more than 19,000 full-length human proteins demonstrates strong preferential recognition of IGF1R. The intended target ranks first with a Z-score of approximately 126.75 and an S-score of approximately 115.53, markedly separated from the next-ranked proteins. The Z-score represents signal strength in standard deviations above the mean signal across the array, while the S-score represents the difference between successive ranked Z-scores and therefore indicates relative target specificity. This Protein Microarray Validated result demonstrates highly selective recognition of IGF1R by clone IGF1R/4667.

Description

IGF1R Antibody recognizes insulin-like growth factor 1 receptor (IGF1R), a transmembrane receptor tyrosine kinase that mediates cellular responses to insulin-like growth factors. Also designated CD221, IGF1R belongs to the insulin receptor subfamily of receptor tyrosine kinases. The mature receptor is a disulfide-linked heterotetramer composed of two extracellular alpha chains and two membrane-spanning beta chains. The alpha chains participate in ligand binding, while the beta chains contain the intracellular tyrosine kinase domain. IGF1R binds IGF1 with high affinity and can also interact with IGF2 and insulin at lower affinity.

Ligand binding induces receptor activation and autophosphorylation of tyrosine residues within the kinase domain. Activated IGF1R phosphorylates signaling adaptors including insulin receptor substrates and SHC proteins, connecting the receptor to pathways that regulate proliferation, survival, metabolism, and protein synthesis. Two prominent downstream signaling routes are the PI3K-AKT and RAS-MAPK pathways. IGF1R signaling can also interact with additional signaling networks, illustrating the receptor's broad role in coordinating extracellular growth signals with intracellular responses.

IGF1R has important functions in normal growth and development and is widely studied in cancer biology. Altered

receptor expression and IGF signaling have been investigated in multiple malignancies because IGF1R-mediated signaling can influence cell proliferation, survival, migration, and resistance to apoptosis. The receptor can also form hybrid receptors with the insulin receptor, adding another level of regulation to insulin and insulin-like growth factor signaling. These biological connections make the Insulin-Like Growth Factor 1 Receptor Antibody relevant to studies of receptor expression and IGF-associated signaling mechanisms.

This mouse monoclonal antibody is derived from clone IGF1R/4667 and has been characterized by protein microarray analysis. Protein Microarray Validated status provides additional evidence of target recognition and specificity within a large protein panel. NSJ Bioreagents supplies this reagent for research investigating IGF1R biology and growth factor signaling. An IGF1R Antibody can be used to examine insulin-like growth factor 1 receptor expression in studies of receptor tyrosine kinase signaling, cellular growth, and survival.

Explore our Signal Transduction Antibodies page for additional antibodies targeting receptors, kinases, and downstream proteins involved in cellular signaling pathways.

Application Notes

Optimal dilution of the IGF1R Antibody IGF1R/4667 / Insulin-Like Growth Factor 1 Receptor Antibody should be determined by the researcher.

Immunogen

A portion of amino acids 550-750 was used as the immunogen for the IGF1R Antibody IGF1R/4667.

Storage

Aliquot the IGF1R Antibody IGF1R/4667 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, IGFIR antibody, IGFR antibody, CD221 antibody, JTK13 antibody

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