# IGF1R Antibody / Insulin-like growth factor 1 receptor (FY12364)

| Catalog No. | Formulation | Size |
|---|---|---|
| FY12364 | Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml | 100 ug |

**Bulk quote request**

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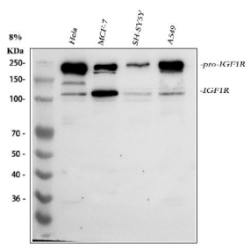
|---|---|
| **Availability** | 1-2 days |
| **Species Reactivity** | Human |
| **Format** | Lyophilized |
| **Host** | Rabbit |
| **Clonality** | Polyclonal (rabbit origin) |
| **Isotype** | Rabbit IgG |
| **Purity** | Immunogen affinity purified |
| **Buffer** | Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4. |
| **UniProt** | P08069 |
| **Applications** | Western Blot : 0.25-0.5ug/ml<br>ELISA : 0.1-0.5ug/ml |
| **Limitations** | This IGF1R antibody is available for research use only. |




Western blot analysis of IGF1R using anti-IGF1R antibody. Lane 1: human Hela whole cell lysates, Lane 2: human MCF-7 whole cell lysates, Lane 3: human SH-SY5Y whole cell lysates, Lane 4: human whole cell lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-IGF1R antibody at 0.5 ug/ml overnight at 4oC, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal was developed using enhanced chemiluminescent. Predicted molecular weight: ~200 kDa (pro), 120-130 kDa (alpha), 90-97 kDa (beta).

## Description

The IGF1R antibody targets Insulin-like growth factor 1 receptor, a transmembrane tyrosine kinase receptor encoded by the IGF1R gene. This receptor mediates the biological effects of insulin-like growth factors IGF1 and IGF2, regulating growth, differentiation, and survival in many cell types. Insulin-like growth factor 1 receptor activates key signaling cascades, including the PI3K-AKT and MAPK pathways, that promote cell proliferation and metabolism. The IGF1R

antibody enables researchers to examine receptor expression, signaling activation, and involvement in normal physiology and disease.

Insulin-like growth factor 1 receptor is synthesized as a single-chain precursor that is cleaved into alpha and beta subunits, forming a disulfide-linked heterotetramer. The extracellular alpha subunits bind ligand, while the transmembrane beta subunits contain intrinsic tyrosine kinase domains responsible for signal transduction. The IGF1R antibody allows detection of both full-length and processed receptor forms, supporting detailed analysis of receptor biosynthesis and activation states.

IGF1R signaling is essential for embryonic growth, tissue regeneration, and metabolic control. Activation of the receptor stimulates glucose uptake, protein synthesis, and cell survival pathways, maintaining anabolic balance. Dysregulation of Insulin-like growth factor 1 receptor has been linked to cancer, diabetes, and aging-related pathologies. The IGF1R antibody provides a valuable tool for monitoring these changes and understanding how altered receptor signaling drives disease progression. In cancer research, IGF1R overexpression promotes tumor cell proliferation, invasion, and resistance to apoptosis, making it a key target for therapeutic intervention.

In developmental and metabolic studies, the IGF1R antibody helps characterize how ligand-receptor interactions influence growth hormone signaling and nutrient sensing. Immunohistochemistry and immunofluorescence using this antibody reveal receptor localization at the plasma membrane and endosomal compartments, reflecting active signaling dynamics. In addition, phosphorylation-specific variants of the IGF1R antibody can distinguish active receptor states, complementing this general reagent for total protein analysis.

NSJ Bioreagents supplies the IGF1R antibody with validated specificity and reproducibility across assay platforms. It performs effectively in western blotting, immunohistochemistry, and flow cytometry. By enabling the study of Insulin-like growth factor 1 receptor expression and regulation, this antibody supports research into cancer biology, metabolic regulation, and developmental signaling. The IGF1R antibody remains a cornerstone reagent for scientists investigating growth factor pathways and their therapeutic targeting in human disease.

## Application Notes

Optimal dilution of the IGF1R antibody should be determined by the researcher.

## Immunogen

E.coli-derived human IGF1R recombinant protein (Position: Q44-R960) was used as the immunogen for the IGF1R antibody.

## Storage

After reconstitution, the IGF1R antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.