

**• Rabbit Anti-Insulin Receptor/CD220 Polyclonal Antibody**

## Primary Antibodies

**Background:**

The insulin receptor is a heterotetrameric membrane glycoprotein with tyrosine-protein kinase activity, consisting of disulfide-linked subunits in a beta-alpha-alpha-beta configuration. The beta subunit possesses a single transmembrane domain, whereas the alpha subunit is completely extracellular. The alpha chains contribute to the formation of the ligand-binding domain, while the beta chains carry the kinase domain. Binding of insulin to the insulin receptor stimulates its association with downstream mediators including IRS1 and phosphatidylinositol 3'-kinase (PI3K) which leads to glucose uptake. Two transcript variants encoding different isoforms have been found for this gene produced by alternative splicing.

Protein kinases are enzymes that transfer a phosphate group from a phosphate donor, generally the  $\gamma$  phosphate of ATP, onto an acceptor amino acid in a substrate protein. By this basic mechanism, protein kinases mediate most of the signal transduction in eukaryotic cells, regulating cellular metabolism, transcription, cell cycle progression, cytoskeletal rearrangement and cell movement, apoptosis, and differentiation. With more than 500 gene products, the protein kinase family is one of the largest families of proteins in eukaryotes. The family has been classified in 8 major groups based on sequence comparison of their tyrosine (PTK) or serine/threonine (STK) kinase catalytic domains. The tyrosine kinase (TK) group is mainly involved in the regulation of cell-cell interactions such as differentiation, adhesion, motility and death. There are currently about 90 TK genes sequenced, 58 are of receptor protein TK (e.g. EGFR, EPH, FGFR, PDGFR, TRK, and VEGFR families), and 32 of cytosolic TK (e.g. ABL, FAK, JAK, and SRC families).

**Source/Purification:**

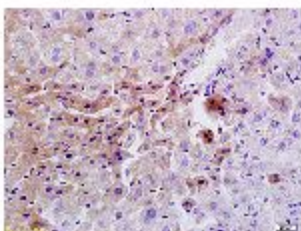
KLH conjugated synthetic peptide derived from human IR N-terminus. Was purified by Protein A and peptide affinity chromatography.

**Storage:** Prepared as lyophilized powder or liquid and shipped on ice. Store at -20°C for one year.

**Reconstitution:**

If the antibody is in liquid form, no reconstitution needed.

Reconstitution is only required for the lyophilized antibody. Please refer to the reconstitution instruction card in the package.



**Size:** 100ul or 100ug lyophilized

**Concentration:** 1ug/ul

**Host:** Rabbit

**Reactivities:**

Human, Mouse, Rat, Chicken, Dog, Cow, Horse, Rabbit, Sheep,

**Application:**

- WB(1:100-500)
- ELISA(1:500-1000)
- IP(1:20-100)
- IHC-P(1:100-500)
- IHC-F(1:100-500)
- IF(1:100-500)
- Not yet tested in other applications. Optimal working dilutions must be determined by the end user.

**Antibody Type:** Polyclonal

**Isotype:** IgG

**Molecular Weight:** 165kDa

**Preservatives:** 10ug/uL BSA and 0.1% Na<sub>3</sub>

For research use only. CAUTION: Not for human or animal therapeutic or diagnostic use.