

**• Rabbit Anti-Insulin Receptor Beta Polyclonal Antibody**

## Primary Antibodies

**Background:**

The human insulin receptor is a heterotetrameric membrane glycoprotein consisting of disulfide linked subunits in a beta-alpha-alpha-beta configuration. The beta subunit (95 kDa) possesses a single transmembrane domain, whereas the alpha subunit (135 kDa) is completely extracellular. The insulin receptor exhibits receptor tyrosine kinase (RTK) activity. RTKs are single pass transmembrane receptors that possess intrinsic cytoplasmic enzymatic activity, catalyzing the transfer of the gamma phosphate of ATP to tyrosine residues in protein substrates. RTKs are essential components of signal transduction pathways that affect cell proliferation, differentiation, migration and metabolism.

Included in this large protein family are the insulin receptor and the receptors for growth factors such as epidermal growth factor, fibroblast growth factor and vascular endothelial growth factor. Receptor activation occurs through ligand binding, which facilitates receptor dimerization and autophosphorylation of specific tyrosine residues in the cytoplasmic portion. The interaction of insulin with the alpha subunit of the insulin receptor activates the protein tyrosine kinase of the beta subunit, which then undergoes an autophosphorylation that increases its tyrosine kinase activity. Three adapter proteins, IRS1, IRS2 and Shc, become phosphorylated on tyrosine residues following insulin receptor activation. These three phosphorylated proteins then interact with SH2 domain containing signaling proteins.

**Source/Purification:**

KLH conjugated synthetic peptide derived from human IR beta. 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,

**Application:**

- WB(1:100-500)
- ELISA(1:500-1000)
- IP(1:20-100)
- IHC-P(1:100-500)
- IHC-F(1:100-500)
- FACS(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:** 68kDa

**Preservatives:**

10ug/uL BSA and 0.1% NaN<sub>3</sub>.

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