

# Phospho-INSR (Tyr1146)/IGF1R (Tyr1131) Recombinant antibody

Catalog Number: 82830-15-RR

## Basic Information

**Catalog Number:**

82830-15-RR

**Concentration:**

1000 µg/ml

**Source:**

Rabbit

**Isotype:**

IgG

**GenBank Accession Number:**

BC117172

**GeneID (NCBI):**

3643

**UNIPROT ID:**

P06213

**Full Name:**

INSR

**Observed MW:**

95 kDa

**Purification Method:**

Protein A purification

**CloneNo.:**

243066C4

**Recommended Dilutions:**

WB 1:1000-1:8000

## Applications

**Tested Applications:**

WB, ELISA

**Species Specificity:**

human, mouse, rat

**Positive Controls:**

WB : IGF-1 treated HEK-293 cells, IGF-1 treated C6 cells, IGF-1 treated NIH/3T3 cells

## Background Information

Insulin binding to the insulin receptor (INSR) triggers sequential conformational changes and autophosphorylation of the receptor, followed by activation of a kinase signaling cascade that plays essential roles in a wide variety of biological processes. INSR belongs to a class of receptor tyrosine kinases (RTKs) that comprises 58 receptors in humans. The INSR shares a high structural homology with the IGF1R (84% similarity in the tyrosine kinase domain, 45-65% in the ligand-binding domain, and more than 50% in the overall amino acid sequence). In addition, ligand-dependent activation of the INSR and IGF1R activates almost identical downstream signaling cascades. Insulin binds to INSR in peripheral tissues, initiating receptor activation followed by intracellular signaling cascades. The first step in INSR activation is the autophosphorylation of intracellular tyrosine residues in the JM domain, kinase activation loop, and CT domain. Phosphorylation of three tyrosine residues (Tyr1146, Tyr1150, and Tyr1151, based on INSR isoform A numbering) located in the kinase activation loop plays a crucial role in kinase activity regulation. Insulin binding also induces INSR kinase-mediated phosphorylation of four tyrosine residues located in the JM (Tyr953 and Tyr960) and CT domain (Tyr1316 and Tyr1322). (PMID: 37779149, PMID: 24434591)

## Storage

**Storage:**

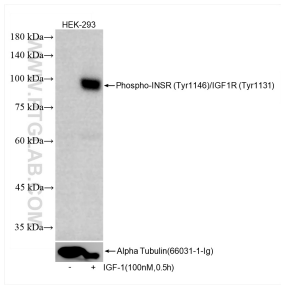
Store at -20°C. Stable for one year after shipment.

**Storage Buffer:**

PBS with 0.02% sodium azide and 50% glycerol, pH7.3

Aliquoting is unnecessary for -20°C storage

# Selected Validation Data



Non-treated and IGF-1 treated HEK-293 cells were subjected to SDS PAGE followed by western blot with 82830-15-RR (Phospho-INSR (Tyr1146)/IGF1R (Tyr1131) antibody) at dilution of 1:4000 incubated at room temperature for 1.5 hours. The membrane was stripped and re-blotted with Alpha Tubulin (66031-1-Ig) antibody as loading control.