For Research Use Only

Phospho-INSR (Tyr1146)/IGF1R (Tyr1131) Recombinant antibody, PBS Only

Catalog Number:82830-15-PBS

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Basic Information

Catalog Number:
82830-15-PBS

Size:
100ug , Concentration: 1 mg/ml by Nanodrop;

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

Applications

Tested Applications:
WB, Indirect ELISA

Species Specificity:
human, mouse, rat

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 -80°C.
Storage Buffer:
PBS only, pH7.3

For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)
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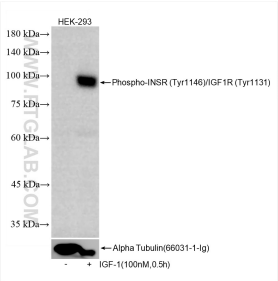
Selected Validation Data



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. This data was developed using the same antibody clone with 82830-15-PBS in a different storage buffer formulation.