**bs-16680R** **[ Primary Antibody ]**

# phospho-Insulin Receptor (Tyr999) Rabbit pAb

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## DATASHEET

**Host:** Rabbit **Isotype:** IgG

**Clonality:** Polyclonal

**GeneID:** 3643 **SWISS:** P06213

**Target:** Insulin Receptor (Tyr999)

**Immunogen:** KLH conjugated Synthesised phosphopeptide derived from human Insulin Receptor around the phosphorylation site of Tyr999: PE(p-Y)LS.

**Purification:** affinity purified by Protein A

**Concentration:** 1mg/ml

**Storage:** 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.

**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.

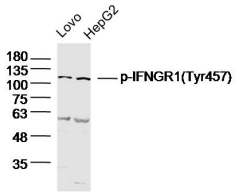
**Applications:** **WB** (1:500-2000)
**IHC-P** (1:100-500)
**IHC-F** (1:100-500)
**IF** (1:100-500)
**Flow-Cyt** (1μg/Test)

**Reactivity:** Human, Rat (predicted: Cow, Chicken, Horse)

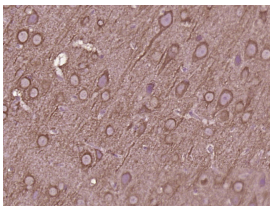
**Predicted MW.:** 70/152 kDa

**Subcellular Location:** Cell membrane

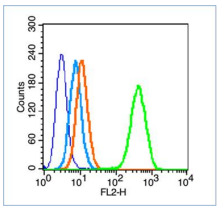
## VALIDATION IMAGES




Sample: Lovo (Human)Cell Lysate at 40 ug HepG2 (Human) Cell Lysate at 40 ug Primary: Anti-p-IFNGR1 (Tyr457)(bs-16680R)at 1/300 dilution Secondary: IRDye800CW Goat Anti-RabbitIgG at 1/20000 dilution Predicted band size: 70kD Observed band size: 125kD



Paraformaldehyde-fixed, paraffin embedded (rat brain tissue); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Insulin Receptor (Tyr999)) Polyclonal Antibody, Unconjugated (bs-16680R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.




Blank control (blue line): HL60(fixed with 70% ethanol Overnight at 4°C). Primary Antibody (green line): Rabbit Anti-Phospho-Insulin Receptor (Tyr999)antibody (bs-16680R),Dilution: 0.2μg /10^6 cells; Isotype Control Antibody (orange line): Rabbit IgG . Secondary Antibody (white blue line): Goat anti-rabbit IgG-PE,Dilution: 1μg /test.

Important Note: This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

## SELECTED CITATIONS

- **[IF=2.868]** Liu B et al. MicroRNA‐379 mediates pigmentation, migration, and proliferation of melanocytes by targeting the insulin‐like growth factor 1 receptor. Exp Dermatol. 2020 May;29(5):467-476. WB ;alpaca. 32170969

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