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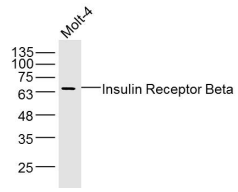
Insulin Receptor Beta Rabbit pAb

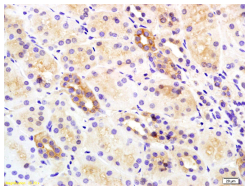
Catalog Number:	bs-0290R
Target Protein:	Insulin Receptor Beta
Concentration:	1mg/ml
Form:	Liquid
Host:	Rabbit
Clonality:	Polyclonal
Isotype:	IgG
Applications:	WB (1:500-2000), IHC-P (1:100-500), IHC-F (1:100-500), IF (1:100-500), Flow-Cyt (0.2μg/Test), ICC/IF (1:100)
Reactivity:	Human (predicted:Mouse, Rat)
Predicted MW:	68/152 kDa
Entrez Gene:	3643
Swiss Prot:	P06213
Source:	KLH conjugated synthetic peptide derived from human Insulin Receptor Beta: 1001-1100/1382.
Purification:	affinity purified by Protein A
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.

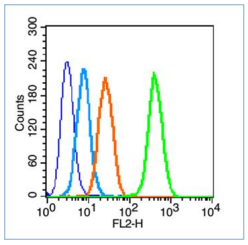
VALIDATION IMAGES



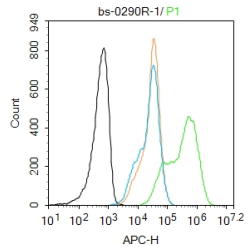
Sample:Molt-4 Cell (Human) Lysate at 40 ug Primary: Anti- Insulin Receptor Beta (bs-0290R) at 1/300 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 68 kD Observed band size: 68 kD



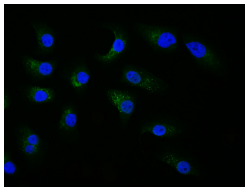
Tissue/cell: human kidney carcinoma; 4% Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min; Incubation: Anti-Insulin Receptor Beta Polyclonal Antibody, Unconjugated(bs-0290R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Blank control (blue line): HL60(blue). Primary Antibody (green line): Rabbit Anti-Insulin Receptor alpha antibody (bs-0290R) 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. Protocol The cells were fixed with 70% ethanol Overnight at 4°C. Cells stained with Primary Antibody for 30 min at room temperature. The cells were then incubated in 1 X PBS/2%BSA/10% goat serum to block non-specific protein-protein interactions followed by the antibody for 15 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed.



Blank control:Molt4. Primary Antibody (green line): Rabbit Anti-Insulin Receptor Beta antibody (bs-0290R) Dilution: 1µg /10^6 cells; Isotype Control Antibody (orange line): Rabbit IgG . Secondary Antibody : Goat anti-rabbit IgG-AF647 Dilution: 1µg /test. Protocol The cells were fixed with 4% PFA (10min at room temperature)and then permeabilized with 0.1% PBST for 20 min at room temperature. The cells were then incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at room temperature .Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed.



HepG2 cell; 4% Paraformaldehyde-fixed; Triton X-100 at room temperature for 20 min; Blocking buffer (normal goat serum, C-0005) at 37°C for 20 min; Antibody incubation with (Insulin Receptor Beta) polyclonal Antibody, Unconjugated (bs-0290R) 1:100, 90 minutes at 37°C; followed by a conjugated Goat Anti-Rabbit IgG antibody at 37°C for 90 minutes, DAPI (blue, C02-04002) was used to stain the cell nuclei.

PRODUCT SPECIFIC PUBLICATIONS

[IF=3.078] Yoshikatsu Saitoh. et al. Improvement of hepatocyte engraftment by co‐transplantation with pancreatic islets in hepatocyte transplantation. 2021 Jan 23 IHC ; Rat . 33484496

[IF=0] Boshra, Vivian, and Wagdi Elkashef. "Renal Insulin Sensitizing Effect of Exenatide in a High-fat Diet Obesity Rat Model." British Journal of Medicine & Medical Research (2017). IHC ; ="Rat" . doi:10.9734/BJMMR/2017/32349