IGF1 Receptor (PT0136R) PT® Rabbit mAb

CatalogNo: YM8077 Recombinant

Key Features

Host Species
- Rabbit

Reactivity
- Human,

Applications
- WB,IHC,IF,IP,ELISA

MW
- 154kD (Calculated)
200kD (Observed)

Isotype
- IgG,Kappa

Recommended Dilution Ratios

IHC 1:100-200
WB 1:1000-5000
IF 1:200-1000
ELISA 1:5000-20000
IP 1:50-200

Storage

Storage*	-15°C to -25°C/1 year(Do not lower than -25°C)
Formulation	PBS, 50% glycerol, 0.05% Proclin 300, 0.05%BSA

Basic Information

Clonality	Monoclonal
Clone Number	PT0136R

Immunogen Information

Specificity	Endogenous

Target Information

Gene name IGF1R

Protein Name Insulin-like growth factor 1 receptor

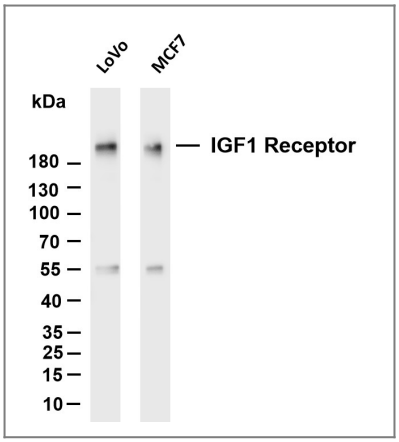
Organism	Gene ID	UniProt ID
Human	3480;	P08069;
Mouse	16001;	Q60751;
Rat	25718;	P24062;

Cellular Localization Membranous

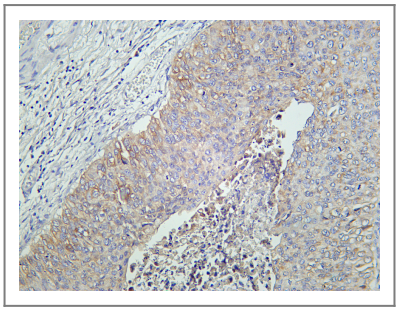
Tissue specificity Found as a hybrid receptor with INSR in muscle, heart, kidney, adipose tissue, skeletal muscle, hepatoma, fibroblasts, spleen and placenta (at protein level). Expressed in a variety of tissues. Overexpressed in tumors, including melanomas, cancers of the colon, pancreas prostate and kidney.

Function Catalytic activity:ATP + a [protein]-L-tyrosine = ADP + a [protein]-L-tyrosine phosphate.,Disease:Defects in IGF1R may be a cause in some cases of resistance to insulin-like growth factor 1 (IGF1 resistance) [MIM:270450]. IGF1 resistance is a gowth deficiency disorder characterized by intrauterine growth retardation and poor postnatal growth accompanied with increased plasma IGF1.,enzyme regulation:Autophosphorylation activates the kinase activity.,Function:This receptor binds insulin-like growth factor 1 (IGF1) with a high affinity and IGF2 with a lower affinity. It has a tyrosine-protein kinase activity, which is necessary for the activation of the IGF1-stimulated downstream signaling cascade. When present in a hybrid receptor with INSR, binds IGF1. PubMed:12138094 shows that hybrid receptors composed of IGF1R and INSR isoform Long are activated with a high affinity by IGF1, with low affinity by IGF2 and not significantly activated by insulin, and that hybrid receptors composed of IGF1R and INSR isoform Short are activated by IGF1, IGF2 and insulin. In contrast, PubMed:16831875 shows that hybrid receptors composed of IGF1R and INSR isoform Long and hybrid receptors composed of IGF1R and INSR isoform Short have similar binding characteristics, both bind IGF1 and have a low affinity for insulin.,online information:IGF-1 receptor entry,PTM:Phosphorylation of Tyr-980 is required for IRS1- and SHC1-binding.,PTM:The cytoplasmic domain of the beta subunit is autophosphorylated on tyrosine residues in response to insulin-like growth factor I (IGF I).,similarity:Belongs to the protein kinase superfamily. Tyr protein kinase family. Insulin receptor subfamily.,similarity:Contains 1 protein kinase domain.,similarity:Contains 3 fibronectin type-III domains.,subunit:Tetramer of 2 alpha and 2 beta chains linked by disulfide bonds. The alpha chains contribute to the formation of the ligand-binding domain, while the beta chain carries the kinase domain. Interacts with PIK3R1 and with the PTB/PID domains of IRS1 and SHC1 in vitro when autophosphorylated on tyrosine residues. Forms a hybrid receptor with INSR, the hybrid is a tetramer consisting of 1 alpha chain and 1 beta chain of INSR and 1 alpha chain and 1 beta chain of IGF1R.,tissue specificity:Found as a hybrid receptor with INSR in muscle, heart, kidney, adipose tissue, skeletal muscle, hepatoma, fibrobasts, spleen and placenta (at protein level). Expressed in a variety of tissues.,

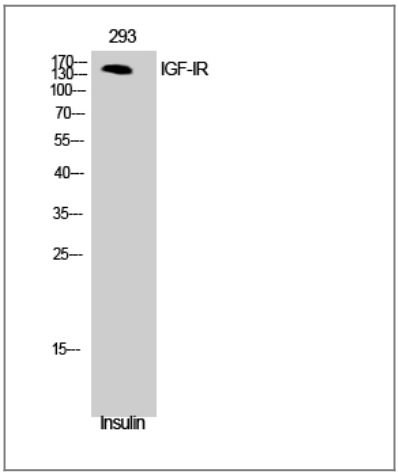
Validation Data



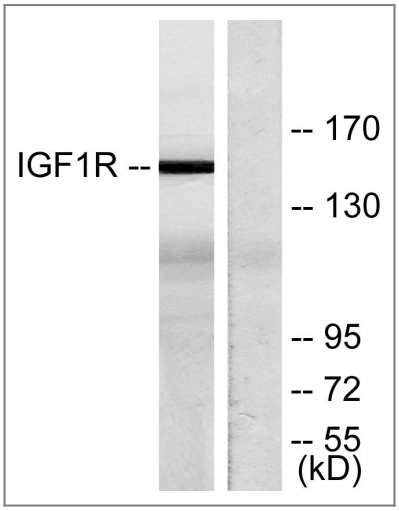
Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-IGF1 Receptor antibody. The HRP-conjugated Goat anti-Rabbit IgG(H + L) antibody was used to detect the antibody. Lane 1: LoVo Lane 2: MCF7 Predicted band size: 154kDa Observed band size: 200kDa



Human bladder carcinoma was stained with Anti-IGF1 Receptor rabbit antibody



Western Blot analysis of NIH-3T3 cells using IGF-IR Antibody diluted at 1:500



Western blot analysis of lysates from 293 cells, treated with Insulin, using IGF1R Antibody. The lane on the right is blocked with the synthesized peptide.

Contact information

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