

## Rabbit Anti-IGF1R antibody

SL0227R

<b>Product Name</b>	IGF1R
<b>Chinese Name</b>	胰岛素样生长因子 I 受体抗体
<b>Alias</b>	Insulin-like growth factor 1 receptor; CD221; CD221 antigen; IGF1 Receptor; IGF 1 receptor; IGF 1R; IGF I receptor; IGFIRC; Insulin like growth factor 1 receptor precursor; JTK13; MGC142170; MGC142172; Insulin-like growth factor 1 receptor beta chain; IGF 1 receptor; IGF-1R; IGF I receptor; IGF-I receptor; IGF-IR; IGF1R_HUMAN.
<b>Research Area</b>	Tumour immunology Signal transduction Growth factors and hormones transcriptional regulatory factor Kinases and Phosphatases The cell membrane 受体 Diabetes
<b>Immunogen Species</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>React Species</b>	Human,Mouse (predicted:Rat,Dog,Pig,Cow,Horse,Rabbit,Sheep)
<b>Applications</b>	Flow-Cyt=1µg/Test (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
<b>Theoretical molecular weight</b>	78/150kDa
<b>Cellular localization</b>	The cell membrane
<b>Form</b>	Liquid
<b>Concentration</b>	1mg/ml
<b>immunogen</b>	KLH conjugated synthetic peptide derived from human IGF-1R alpha chain: 251-350/1367
<b>Lsotype</b>	IgG
<b>Purification</b>	affinity purified by Protein A
<b>Buffer Solution</b>	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.
<b>Storage</b>	Shipped at 4°C. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
<b>Attention</b>	This product as supplied is intended for research use only, not for use in

human, therapeutic or diagnostic applications.

## PubMed

### [PubMed](#)

This receptor binds insulin-like growth factor with a high affinity. It has tyrosine kinase activity. The insulin-like growth factor I receptor plays a critical role in transformation events. Cleavage of the precursor generates alpha and beta subunits. It is highly overexpressed in most malignant tissues where it functions as an anti-apoptotic agent by enhancing cell survival. [provided by RefSeq, Jul 2008].

### **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.

## Product Detail

### **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. Interacts with ARRB1 and ARRB2.

### **Subcellular Location:**

Membrane; Single-pass type I membrane protein.

### **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.

### **Post-translational modifications:**

The cytoplasmic domain of the beta subunit is autophosphorylated on tyrosine residues in response to insulin-like growth factor I (IGF I).

Phosphorylation of Tyr-980 is required for IRS1- and SHC1-binding.

**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 growth deficiency disorder characterized by intrauterine growth retardation and poor postnatal growth accompanied with increased plasma IGF1.

**Similarity:**

Belongs to the protein kinase superfamily. Tyr protein kinase family. Insulin receptor subfamily.

Contains 3 fibronectin type-III domains.

Contains 1 protein kinase domain.

**SWISS:**

P08069

**Gene ID:**

3480

**Database links:**

[Entrez Gene: 3480](#) Human

[Entrez Gene: 16001](#) Mouse

[Entrez Gene: 25718](#) Rat

[Omim: 147370](#) Human

[SwissProt: P08069](#) Human

[SwissProt: Q60751](#) Mouse

[SwissProt: P24062](#) Rat

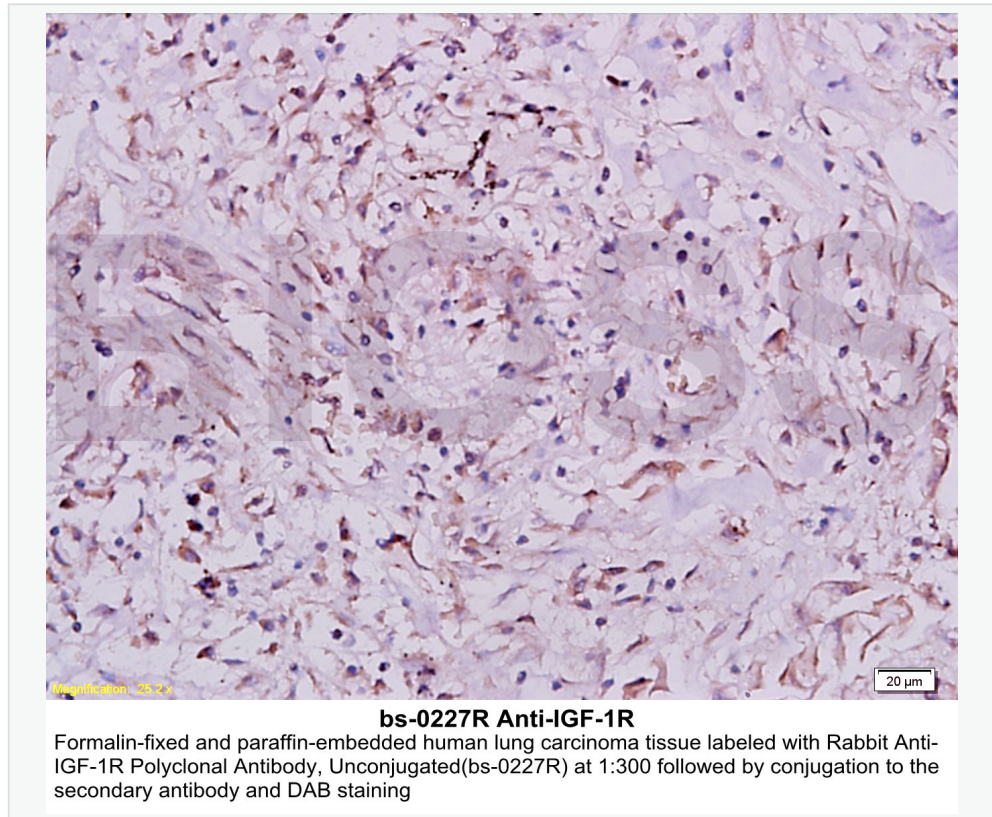
[Unigene: 643120](#) Human

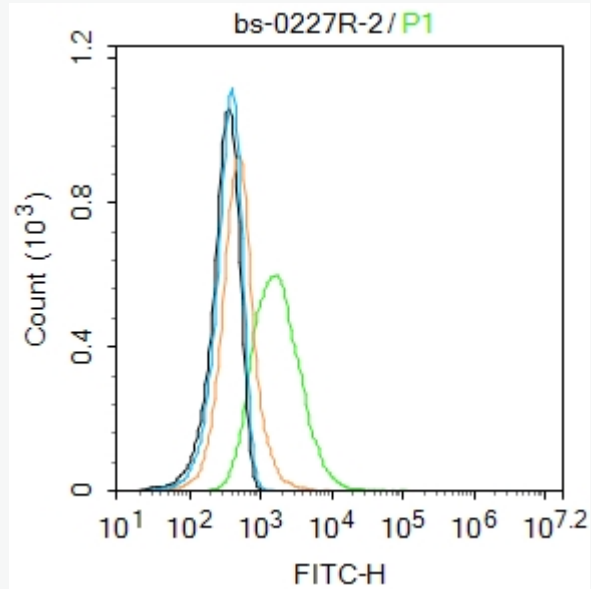
[Unigene: 714012](#) Human

[Unigene: 275742](#) Mouse

[Unigene: 10957](#) Rat

**Product Picture**





Blank control: MCF7.

Primary Antibody (green line): Rabbit Anti-IGF1R antibody (SL0227R)

Dilution: 2 $\mu$ g /10<sup>6</sup> cells;

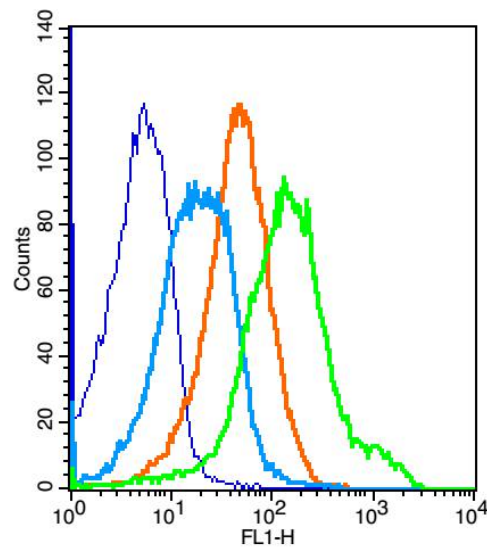
Isotype Control Antibody (orange line): Rabbit IgG .

Secondary Antibody : Goat anti-rabbit IgG-FITC

Dilution: 1 $\mu$ g /test.

#### Protocol

The cells were 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.



Key	Name	Parameter	Gate
—	(mo)Splenocyte-blank.049	FL1-H	G1
—	bs-0295P-(CST)-(FITC)#1E624C.051	FL1-H	G1
—	bs-0295G-FITC(CST)-(#1E624A.050	FL1-H	G1
—	bs-0227R-(FITC)-(mo)Sple-1.060	FL1-H	G1

Positive control: (mo)Splenocytes(2% Paraformaldehyde-fixed )

Isotype Control Antibody

Antibody: Rabbit IgG; Supplier: Cell Signaling Technology; Dilution:  
1µg in 100 µl 1 X PBS containing 0.5% BSA

Secondary Antibody

Antibody: Goat anti-rabbit IgG-FITC; Supplier: Cell Signaling  
Technology; Dilution: 1:200 in 1 X PBS containing 0.5% BSA

Primary Antibody

Supplier: Bioss; Supplier catalog number: SL0227R; Dilution: 1µg in 100



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$\mu$ l 1X PBS containing 0.5% BSA