

Basic Information

Product Name	Anti-IGF1R Antibody
Gene Name	Igf1r
Source	Rabbit
Clonality	Polyclonal
Isotype	IgG
Species Reactivity	mouse, rat
Tested Application	WB, IHC, ELISA
Contents	500 ug/ml antibody with PBS, 0.02% NaN ₃ , 1 mg/ml BSA and 50% glycerol.
Immunogen	E. coli-derived mouse IGF1 Receptor recombinant protein (Position: E31-K257). Mouse IGF1 Receptor shares 96% and 100% amino acid (aa) sequence identity with human and rat IGF1 Receptor, respectively.
Concentration	500 ug/ml
Purification	Immunogen affinity purified.
Observed MW	155 kDa
Dilution Ratios	Western blot (WB): 1:500-2000 Immunohistochemistry (IHC): 1:50-400 ELISA: 1:100-1000 (Boiling the paraffin sections in 10mM citrate buffer, pH6.0, or PH8.0 EDTA repair liquid for 20 mins is required for the staining of formalin/paraffin sections.) Optimal working dilutions must be determined by end user.

Storage

12 months from date of receipt, -20°C as supplied.

Background Information

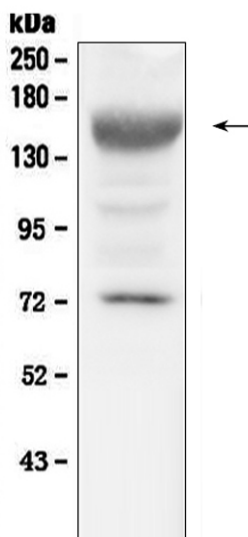
IGF1R (Insulin-like Growth Factor 1 (IGF-1) Receptor) is a protein found on the surface of human cells. It is a transmembrane receptor that is activated by a hormone called Insulin-like growth factor 1 (IGF-1) and by a related hormone called IGF-2. It belongs to the large class of tyrosine kinase receptors. The IGF1R gene is mapped on 15q26.3. IGF-1 plays an important role in growth and continues to have anabolic effects in adults - meaning that it can induce hypertrophy of skeletal muscle and other target tissues. Using a yeast 2-hybrid system, it was identified a regulatory

subunit of phosphatidylinositol (PI) 3-kinase, PIK3R3, as a binding partner of IGF1R. Functional interaction between BRCA1 and SP1 in the regulation of the IGF1R gene was studied in Schneider cells, a Drosophila cell line which lacks endogenous SP1. In these cells, BRCA1 suppressed 45% of the SP1-induced trans-activation of the IGF1R promoter. Overexpression of the Grb10-binding fragment of Gifyf1 resulted in a significant increase in Igf1-stimulated Igf1r tyrosine phosphorylation. Like the insulin receptor, the IGF-1 receptor is a receptor tyrosine kinase - meaning it signals by causing the addition of a phosphate molecule on particular tyrosines. IGF-1 activates the Insulin receptor at approximately 0.1x the potency of insulin. Part of this signaling may be via IGF1R-InsulinReceptor heterodimers.

Reference

Anti-IGF1R Antibody被引用在1文献中。

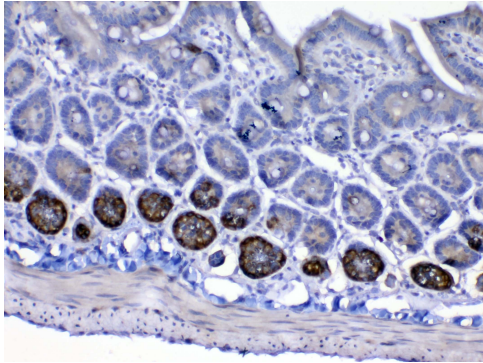
Selected Validation Data



Western blot analysis of IGF1R using anti-IGF1R antibody (A00070). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: mouse liver tissue lysates.

After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-IGF1R antigen affinity purified polyclonal antibody (A00070) at a dilution of 1:1000 and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for IGF1R at approximately 155 kDa. The expected band size for IGF1R is at 155 kDa.



IHC analysis of IGF1R using anti-IGF1R antibody (A00070).

IGF1R was detected in a paraffin-embedded section of mouse small intestine tissue. Biotinylated goat anti-rabbit IgG was used as secondary antibody. The tissue section was incubated with rabbit anti-IGF1R Antibody (A00070) at a dilution of 1:200 and developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB (Catalog # AR1027) as the chromogen.