

Basic Information

Product Name	Anti-IGF1R Antibody (Clone#OTI4C4)
Gene Name	IGF1R
Source	Mouse
Clonality	Monoclonal
Isotype	IgG1
Species Reactivity	human, mouse, rat
Tested Application	FCM, WB
Contents	PBS (PH 7.3) containing 1% BSA, 50% glycerol and 0.02% sodium azide.
Immunogen	Human recombinant protein fragment corresponding to amino acids 741-935 of human IGF1R(NP_000866) produced in Insect.
Concentration	500 ug/ml
Purification	Purified from mouse ascites fluids or tissue culture supernatant by affinity chromatography (protein A/G)
Observed MW	81 kDa
Dilution Ratios	Western blot (WB): 1:2000 Flow Cytometry (FCM):1:100

Storage

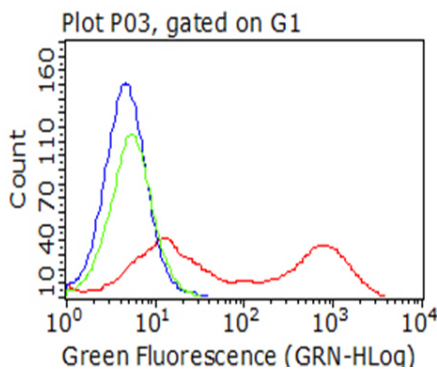
Stable for 12 months from date of receipt. Store at -20°C as received.

Background Information

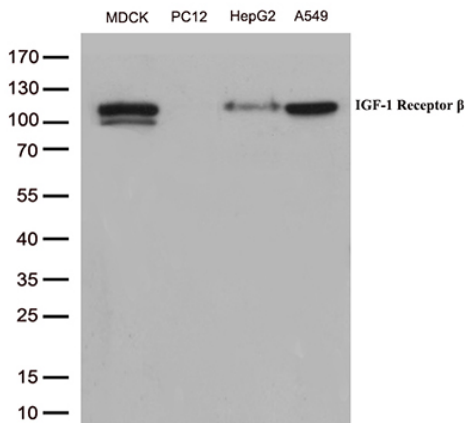
IGF1R(Insulin-like Growth Factor 1(IGF-1) Receptor) is a protein found on the surface of human cells. It is a transmembrane receptor that is activated by a hormone called Insulin-like growth factor 1(IGF-1) and by a related hormone called IGF-2. It belongs to the large class of tyrosine kinase receptors. 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, Dey et al.(1998) 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.

Selected Validation Data



Living HEK293T cells transfected with either overexpress plasmid (Red), compared to an IgG isotype control, (Green) or empty vector control plasmid (Blue) were immunostained by anti-IGF1R antibody, and then analyzed by flow cytometry (1:100).



Western blot analysis of extracts (35ug) from 4 cell lines lysates by using anti-IGF1R monoclonal antibody (1:500).