

Anti-IGF1 Receptor/IGF1R Antibody Picoband® Fluoro647 Conjugated

Catalog Number: PA1746-Fluoro647

About IGF1R

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 Gigyf1 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.

Overview

Product Name	Anti-IGF1 Receptor/IGF1R Antibody Picoband® Fluoro647 Conjugated
Reactive Species	Human, Mouse, Rat
Application	Recommended applications are based on the parent unconjugated antibody (IHC, WB). Customers may select suitable applications according to their experimental needs.
Clonality	Polyclonal
Formulation	Each vial contains 50% glycerol, 0.9% NaCl, 0.2% Na ₂ HPO ₄ , 0.02% Na ₃ N.
Storage Instructions	At -20°C for one year from date of receipt. Avoid repeated freezing and thawing. Protect from light.
Host	Rabbit
Uniprot ID	P08069

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human IGF1 Receptor, different from the related rat and mouse sequences by one amino acid.
Cross Reactivity	No cross-reactivity with other proteins
Isotype	Rabbit IgG
Form	Liquid
Concentration	0.5 mg/mL

Purification	Immunogen affinity purified.
Conjugate	Fluoro647 Excitation Wavelength: 650 nm Emission Wavelength: 665 nm
Suggested Dilutions	Optimal dilutions should be determined by end users.

11 Publications Citing This Product

1. PubMed ID: PMID:28386316, Energy intake correlates with the levels of fatty acid synthase and insulin-like growth factor-1 in male and female C57BL/6 mice
2. PubMed ID: 29650947, Liu GX, Ma S, Li Y, Yu Y, Zhou YX, Lu YD, Jin L, Wang ZL, Yu JH. Exp Mol Med. 2018 Apr 13;50(4):25. doi: 10.1038/s12276-018-0048-7. Hsa-let-7c controls the committed differentiation of IGF-1-treated mesenchymal stem cells derived from dental pulps...
3. PubMed ID: 19424673, Treating Human Meniscal Fibrochondrocytes with hIGF-1 Gene by Liposome

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