

## Anti-IGF1 Receptor/IGF1R Antibody Picoband® PE Conjugated

Catalog Number: PA1746-PE

### 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® PE 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 <sub>2</sub> HPO <sub>4</sub> , 0.02% Na <sub>3</sub> 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           | PE<br>Excitation Wavelength: 566 nm<br>Emission Wavelength: 574 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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