



Anti-IGF1R polyclonal antibody [Biotin] (DPABY-462)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Antigen Description

IGF-I receptor is a disulfide-linked heterotetrameric transmembrane protein consisting of two alpha and two beta subunits. Both the alpha and beta subunits are encoded within a single receptor precursor cDNA. The proreceptor polypeptide is proteolytically cleaved and disulfide-linked to yield the mature heterotetrameric receptor. The alpha subunit of IGF-I receptor is extracellular while the beta subunit has an extracellular domain, a transmembrane domain and a cytoplasmic tyrosine kinase domain. The IGF-I receptor is highly expressed in all cell types and tissues. IGF-II R is a type I transmembrane glycoprotein that contains a 2,264 amino acid (aa) extracellular region, a 23 aa transmembrane segment and a 124 aa cytoplasmic tail. IGF-II R regulates many diverse biological functions that range from intracellular trafficking to the internalization of extracellular factors and modulation of cellular responses. It delivers newly synthesized M6P-tagged lysosomal enzymes from the trans-golgi network to endosomes, and facilitates the clearance of extracellular lysosomal and matrix degrading enzymes by internalization into clathrin-coated vesicles and delivery into endosomes. With respect to IGF-II biology, It would appear that IGF-II R is principally a regulator of local IGF-II levels, targeting IGF-II for destruction in lysosomes. The heterotetrameric receptors for insulin (INS R) and IGF-I (IGF-I R) are receptor tyrosine kinases that consist of two ligand binding alpha subunits and two beta subunits. Ligand binding induces autophosphorylation on multiple tyrosine residues of beta subunits. Phosphorylation of Tyr1162 and 1163 on INS R and Tyr1135 and 1136 on IGF-I R stimulates intrinsic kinase activity.

Specificity	Detects human IGF-IR in ELISAs and Western blots. In sandwich immunoassays, less than 1% cross-reactivity with recombinant human (rh) IGF-I, rhIGF-II, rhIGFBP-1, rhIGFBP-2, rhIGFBP-3, rhIGFBP-4, rhIGFBP-5, and rhIGFBP-6 is observed.
Immunogen	recombinant human IGF-I R extracellular domain Accession Number P08069
Isotype	IgG
Source/Host	Goat

Species Reactivity	Human
Purification	Antigen Affinity-purified
Conjugate	Biotin
Applications	Western Blot, ELISA Detection (Matched Pair)
Format	Liquid
Size	50 µg
Buffer	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose.
Preservative	None
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 °C as supplied. 1 month, 2 to 8 °C under sterile conditions after reconstitution. 6 months, -20 to -70 °C under sterile conditions after reconstitution.

GENE INFORMATION

Gene Name	IGF1R insulin-like growth factor 1 receptor [Homo sapiens (human)]
Official Symbol	IGF1R
Synonyms	IGF1R; insulin-like growth factor 1 receptor; IGFR; CD221; IGFIR; JTK13; IGF-I receptor; soluble IGF1R variant 1; soluble IGF1R variant 2; insulin-like growth factor I receptor;
Entrez Gene ID	3480
Protein Refseq	NP_000866
UniProt ID	P08069
Chromosome Location	15q26.3
Pathway	AMPK signaling pathway; Adherens junction; Apoptosis; Endochondral Ossification; Endocytosis; Focal Adhesion; Focal adhesion; FoxO signaling pathway;
Function	ATP binding; G-protein alpha-subunit binding; identical protein binding; insulin binding; insulin receptor binding; insulin receptor substrate binding; insulin-like growth factor I binding; insulin-like growth factor binding; insulin-like growth factor-ac