



# Anti-IGF2R polyclonal antibody [Biotin] (DPABY-450)

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.

<b>Specificity</b>	Detects human IGF-II R in ELISAs and Western blots. In sandwich ELISAs, less than 0.2% cross-reactivity with recombinant human (rh) IGF-I R, rhIGF-I, and rhIGF-II is observed.
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant human IGF-II R. Ser1510-Phe2108 Accession Number P11717
<b>Isotype</b>	IgG
<b>Source/Host</b>	Goat

<b>Species Reactivity</b>	Human
<b>Purification</b>	Antigen Affinity-purified
<b>Conjugate</b>	Biotin
<b>Applications</b>	Western Blot, Flow Cytometry, ELISA Detection (Matched Pair)
<b>Format</b>	Liquid
<b>Size</b>	50 µg
<b>Buffer</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose.
<b>Preservative</b>	None
<b>Storage</b>	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

<b>Gene Name</b>	<a href="#">IGF2R insulin-like growth factor 2 receptor [ Homo sapiens (human) ]</a>
<b>Official Symbol</b>	IGF2R
<b>Synonyms</b>	IGF2R; insulin-like growth factor 2 receptor; MPR1; MPRI; CD222; CIMPR; M6P-R; cation-independent mannose-6-phosphate receptor; M6PR; CI-MPR; MPR 300; M6P/IGF2R; IGF-II receptor; M6P/IGF2 receptor; CI Man-6-P receptor; 300 kDa mannose 6-phosphate receptor
<b>Entrez Gene ID</b>	<a href="#">3482</a>
<b>Protein Refseq</b>	<a href="#">NP_000867</a>
<b>UniProt ID</b>	<a href="#">P11717</a>
<b>Chromosome Location</b>	6q26
<b>Pathway</b>	Clathrin derived vesicle budding; Golgi Associated Vesicle Biogenesis; Lysosome; Membrane Trafficking; trans-Golgi Network Vesicle Budding;
<b>Function</b>	G-protein alpha-subunit binding; G-protein coupled receptor activity; enzyme binding; glycoprotein binding; identical protein binding; insulin-like growth factor II binding; insulin-like growth factor-activated receptor activity; mannose binding; phosphop