Human/Mouse IGF-I R Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF-305-NA

DESCRIPTION

Species Reactivity	Human/Mouse
Specificity	Detects human and mouse IGF-I R in direct ELISAs and Western blots. In direct ELISAs and Western blots, 25-50% cross-reactivity with recombinant mouse IGF-I R is observed. In direct ELISAs, less than 1% cross-reactivity with recombinant human IGF-II R is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	recombinant human IGF-I R extracellular domain Accession # P08069
Endotoxin Level	<0.10 EU per 1 µg of the antibody by the LAL method.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.

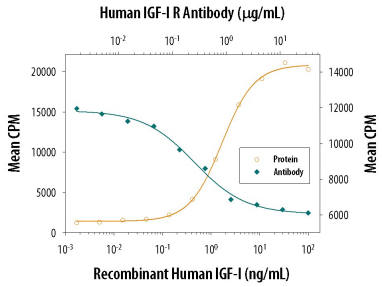
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Western Blot	0.1 µg/mL	Recombinant Human IGF-I R (Catalog # 391-GR) and recombinant Mouse IGF-I R.
Immunohistochemistry	5-15 µg/mL	See Below
Neutralization	Measured by its ability to neutralize IGF-I-induced proliferation in the MCF-7 human breast cancer cell line. Karey, K.P. *et al*. (1988) Cancer Research **48**:4083. The Neutralization Dose (ND_{50}) is typically 0.5-1.5 µg/mL in the presence of 6 ng/mL Recombinant Human IGF-I.	

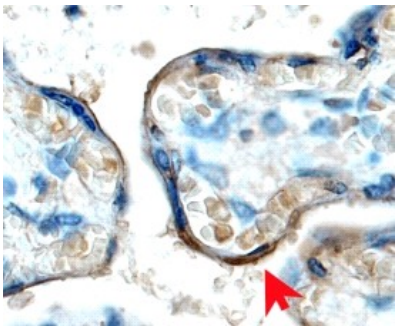
DATA

Neutralization



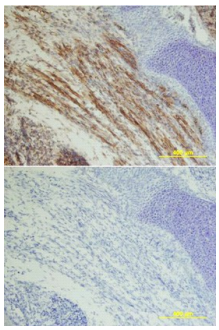
Cell Proliferation Induced by IGF-I and Neutralization by Human IGF-I R Antibody. Recombinant Human IGF-I (Catalog # 291-G1) stimulates proliferation in the MCF-7 human breast cancer cell line in a dose-dependent manner (orange line). Proliferation elicited by Recombinant Human IGF-I (6 ng/mL) is neutralized (green line) by increasing concentrations of Human IGF-I R Antigen Affinity-purified Polyclonal Antibody (Catalog # AF-305-NA). The ND_{50} is typically 0.5-1.5 µg/mL.

Immunohistochemistry



IGF-I R in Human Placenta. IGF-I R was detected in immersion fixed paraffin-embedded sections of human placenta (chorionic villi) using 15 µg/mL Human IGF-I R Antigen Affinity-purified Polyclonal Antibody (Catalog # AF-305-NA) overnight at 4 °C. Tissue was stained with the Anti-Goat HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS008) and counterstained with hematoxylin (blue). View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.

Immunohistochemistry



IGF-I R in Mouse Embryo. IGF-I R was detected in immersion fixed frozen sections of mouse embryo using Human IGF-I R Antigen Affinity-purified Polyclonal Antibody (Catalog # AF-305-NA) at 10 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Goat HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS008) and counterstained with hematoxylin (blue). Lower panel shows a lack of labeling if primary antibodies are omitted and tissue is stained only with secondary antibody followed by incubation with detection reagents. View our protocol for Chromogenic IHC Staining of Frozen Tissue Sections.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & 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 from date of receipt, 2 to 8 °C, reconstituted. ● 6 months from date of receipt, -20 to -70 °C, reconstituted.

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BACKGROUND

IGF-I receptor is a disulfide-linked heterotetrameric transmembrane protein consisting of two α and two β subunits. Both the α and β 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 α subunit of IGF-I receptor is extracellular while the β 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. Essentially all of the biological activities of IGF-I and II have been shown to be mediated via IGF-I R.

References:

1. Rechler, M.M. and S.P. Nissley (1990) *in Insulin-Like Growth Factors*. Sporn, M.B. and A.B. Roberts (eds): *Peptide Growth Factors and Their Receptors I*, New York: Springer-Verlag, p. 263.