

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. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

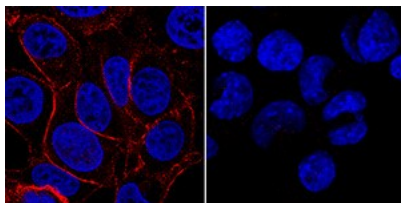
APPLICATIONS

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.
Immunocytochemistry	1-15 µg/mL	See Below
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. <i>et al.</i> (1988) <i>Cancer Research</i> 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.	

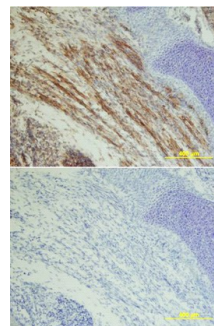
DATA

Immunocytochemistry



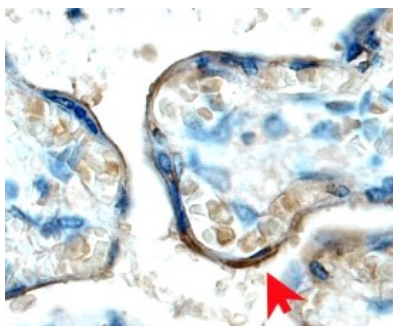
IGF-I R in MCF-7 and HDLM-2 Human Cell Lines. IGF-I R was detected in immersion fixed MCF-7 human breast cancer cell line (positive control, left panel) and HDLM-2 human Hodgkin's lymphoma cell line (negative control, right panel) using Goat Anti-Human/Mouse IGF-I R Antigen Affinity-purified Polyclonal Antibody (Catalog # AF-305-NA) at 1.7 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Goat IgG Secondary Antibody (red; Catalog # NL001) and counterstained with DAPI (blue). Specific staining was localized to plasma membrane. View our protocols for [Fluorescent ICC Staining of Cells on Coverslips](#) and [Fluorescent ICC Staining of Non-adherent Cells](#).

Immunohistochemistry



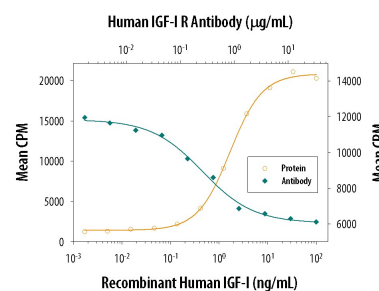
IGF-I R in Mouse Embryo. IGF-I R was detected in immersion fixed frozen sections of mouse embryo using Goat Anti-Human IGF-I R Antigen Affinity-purified Polyclonal Antibody (Catalog # AF-305-NA) at 10 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Goat HRP-DAB Cell & Tissue Staining Kit (brown; 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](#).

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 Goat Anti-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](#).

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 Goat Anti-Human IGF-I R Antigen Affinity-purified Polyclonal Antibody (Catalog # AF-305-NA). The ND₅₀ is typically 0.5-1.5 µg/mL.

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. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none">● 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.

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.