

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human IGF-I/IGF-1 in direct ELISAs and Western blots. In direct ELISAs, approximately 50% cross-reactivity with recombinant mouse IGF-I/IGF-1 and recombinant rat IGF-I/IGF-1 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human IGF-I/IGF-1
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.

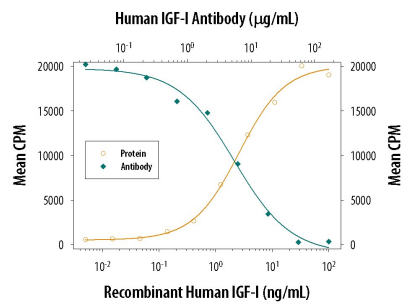
APPLICATIONS

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/IGF-1 (Catalog # 291-G1)
Immunocytochemistry	5-15 µg/mL	See Below
Immunohistochemistry	5-15 µg/mL	See Below
Neutralization		Measured by its ability to neutralize IGF-I/IGF-1-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 3-12 µg/mL in the presence of 6 ng/mL Recombinant Human IGF-I/IGF-1.

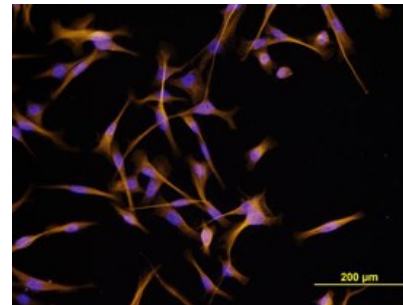
DATA

Neutralization



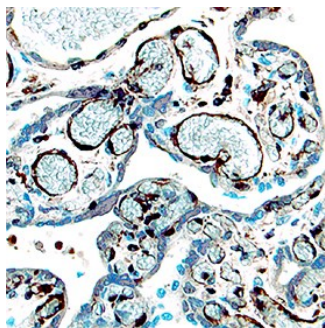
Cell Proliferation Induced by IGF-I/IGF-1 and Neutralization by Human IGF-I/IGF-1 Antibody. Recombinant Human IGF-I/IGF-1 (Catalog # 291-G1) stimulates proliferation in the MCF-7 human breast cancer cell line in a dose-dependent manner (orange line). Proliferation elicited by Recombinant Human IGF-I/IGF-1 (6 ng/mL) is neutralized (green line) by increasing concentrations of Goat Anti-Human IGF-I/IGF-1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF-291-NA). The ND₅₀ is typically 3-12 µg/mL.

Immunocytochemistry



IGF-I/IGF-1 in MDA-MB-231 Human Cell Line. IGF-I/IGF-1 was detected in immersion fixed MDA-MB-231 human breast cancer cell line using Goat Anti-Human IGF-I/IGF-1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF-291-NA) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Goat IgG Secondary Antibody (yellow; Catalog # NL001) and counterstained with DAPI (blue). View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

Immunohistochemistry



IGF-I/IGF-1 in Human Placenta. IGF-I/IGF-1 was detected in immersion fixed paraffin-embedded sections of human placenta using Goat Anti-Human IGF-I/IGF-1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF-291-NA) at 5 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). Specific staining was localized to syncytiotrophoblasts. View our protocol for [Chromogenic IHC Staining of Paraffin-embedded 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. *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/IGF-1 belongs to the family of insulin-like growth factors and circulates in complex with IGF binding proteins. It is a potent mitogenic growth factor that binds the heteromeric type I and type II IGF receptors. Essentially, all of the biological activities of IGF-I/IGF-1 are mediated by IGF-I R.