Human IGF-I R Antibody

Monoclonal Mouse IgG_1 Clone # 33255

Catalog Number: MAB391

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human IGF-I R in sandwich ELISAs and Western blots. In sandwich ELISAs, less than 0.15% cross-reactivity or interference was observed with recombinant human (rh) IGF-I, rhIGF-II, rhIL-3 Rα, rhIL-9 R, and rhTGF-β RII.
Source	Monoclonal Mouse IgG_1 Clone # 33255
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	*S. frugiperda* insect ovarian cell line *Sf* 21-derived recombinant human IGF-I R Glu31-Asn932 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.

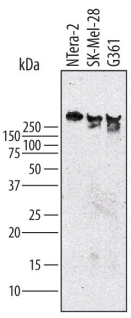
APPLICATIONS

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	1 µg/mL	See Below
Human IGF-I R Sandwich Immunoassay		**Reagent**
ELISA Capture	2-8 µg/mL	Human IGF-I R Antibody (Catalog # MAB391)
ELISA Detection	0.1-0.4 µg/mL	Human IGF-I R Biotinylated Antibody (Catalog # BAF391)
Standard		Recombinant Human IGF-I R (Catalog # 391-GR)
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. At 11 µg/mL, this antibody will neutralize approximately 50-75% of the bioactivity due to 6 ng/mL Recombinant Human IGF-I.	

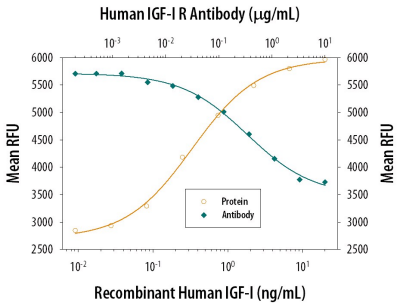
DATA

Western Blot



Detection of Human IGF-I R by Western Blot. Western blot shows lysates of NTera-2 human testicular embryonic carcinoma cell line, SK-Mel-28 human malignant melanoma cell line, and G361 human melanoma cell line. PVDF membrane was probed with 1 µg/mL of Human IGF-I R Monoclonal Antibody (Catalog # MAB391) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF007). A specific band was detected for IGF-I R at approximately 275 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 2.

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 Monoclonal Antibody (Catalog # MAB391). At 11 µg/mL, this antibody will neutralize 50-75% rhIGF-1 induced activity.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 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.

BACKGROUND

Insulin-like growth factor I receptor (IGF-I R) 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 R is extracellular while the β subunit has an extracellular domain, a transmembrane domain and a cytoplasmic tyrosine kinase domain. IGF-I R 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.