

DESCRIPTION

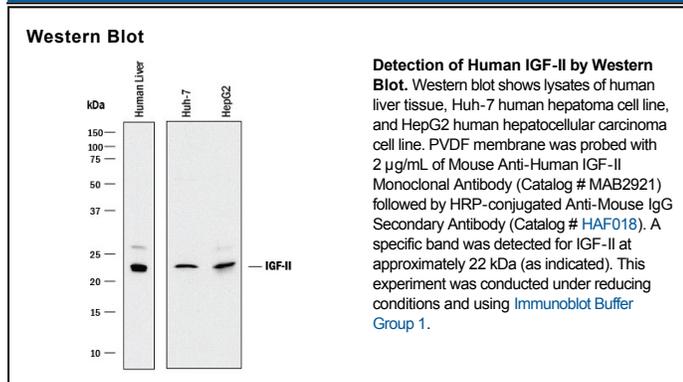
Species Reactivity	Human
Specificity	Detects human IGF-II in direct ELISAs and Western blots. In direct ELISAs and Western blots, this antibody shows approximately 10 - 50% cross-reactivity with recombinant mouse IGF-II.
Source	Monoclonal Mouse IgG _{2A} Clone # 75014
Purification	Protein A or G purified from ascites
Immunogen	<i>E. coli</i> -derived recombinant human IGF-II Ala25-Glu91 Accession # P01344.1
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 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	2 µg/mL	See Below

DATA



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. *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

Insulin-like growth factor I (also known as somatomedin C and somatomedin A) and insulin-like growth factor II (multiplication stimulating activity or MSA) belong to the family of insulin-like growth factors that are structurally homologous to proinsulin. Mature IGF-I and IGF-II share approximately 70% sequence identity. Both IGF-I and IGF-II are expressed in many tissues and cell types and may have autocrine, paracrine and endocrine functions. Mature IGF-I and IGF-II are highly conserved (100% identity between human, bovine and porcine proteins) and exhibit cross-species activity. IGF-II is a potent mitogenic growth factor. However, unlike IGF-I which has important postnatal roles, the growth-promoting function of IGF-II is limited to embryonic development. Two specific cell surface receptors that bind IGF-I and IGF-II have been identified. The type I IGF receptor that participates in IGF signaling is structurally related to the insulin receptor. It is a disulfide-linked heterotetrameric transmembrane glycoprotein with an intracellular tyrosine kinase domain. Type I IGF receptor binds IGF-I with higher affinity than IGF-II. The type II IGF receptor which binds IGF-II with much higher affinity than IGF-I is also the cation-independent mannose 6-phosphate receptor. At the present time, it is not known if the type II IGF receptor participates in the IGF signaling pathway. An additional unknown receptor which mediates IGF-II signaling has also been proposed. Circulating IGFs exist in complexes bound to IGF binding proteins. Currently, at least six high affinity binding proteins have been identified.