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Anti-IGFBP5 Picoband Antibody

Catalog # ABO12397

Product Information

Application	WB, E
Primary Accession	P24593
Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Insulin-like growth factor-binding protein 5(IGFBP5) detection. Tested with WB, ELISA in Human.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	3488
Other Names	Insulin-like growth factor-binding protein 5, IBP-5, IGF-binding protein 5, IGFBP-5, IGFBP5, IBP5
Calculated MW	30570
Application Details	ELISA , 0.1-0.5 □g/ml, Human, - Western blot, 0.1-0.5 □g/ml, Human
Subcellular Localization	Secreted.
Tissue Specificity	Osteosarcoma, and at lower levels in liver, kidney and brain.
Source	Eukaryota
Protein Name	Insulin-like growth factor-binding protein 5
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human IGFBP5 (76-114aa QGLRCLPRQDEEKPLHALLHGRGVCLNEKSYREQVKIER), different from the related mouse and rat sequences by two amino acids.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins
Storage	At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated

freezing and thawing.

Protein Information

Name	IGFBP5
Synonyms	IBP5
Function	Multifunctional protein that plays a critical role in regulating the availability of IGFs to their receptors and thereby regulates IGF-mediated cellular processes including proliferation, differentiation, and apoptosis in a cell-type specific manner (PubMed:18930415, PubMed:7683690). Increases the cell proliferation of osteoblasts, intestinal smooth muscle cells and neuroblastoma cells. Enhances adhesion and survival of epithelial cells but decreases adhesion of mesenchymal cells (By similarity). Once secreted, acts as a major mediator of mTORC1-dependent feedback inhibition of IGF1 signaling (By similarity). Also plays a role in the induction of extracellular matrix (ECM) production and deposition independently of its nuclear translocation and binding to IGFs (PubMed:20345844, PubMed:26103640). Acts itself as a growth factor that can act independently of IGFs to regulate bone formation. Acts as a ligand for the ROR1 receptor which triggers formation of ROR1/HER2 heterodimer to enhance CREB oncogenic signaling (PubMed:36949068).
Cellular Location	Secreted. Cytoplasm. Nucleus
Tissue Location	Osteosarcoma, and at lower levels in liver, kidney and brain

Background

Insulin-like growth factor-binding protein 5 is a protein that in humans is encoded by the IGFBP5 gene. The expression of IGFBP5 by stable transfection and adenovirus-mediated infection is inhibitory to growth in 2 human breast cancer cell lines. IGFBP5 expression leads to G2/M cell cycle arrest and apoptosis. Stable expression of IGFBP5 in the breast cancer cell lines also inhibits the formation and growth of tumors following injection in athymic mice. It is concluded that IGFBP5 is a growth inhibitor and proapoptotic agent in breast cancer cells. Additionally, IGFBP-5 is expressed by fibroblasts, myoblasts and osteoblasts, making it the predominant IGFBP found in bone extracts. It has a strong affinity for hydroxyapatite, allowing it to bind to bone cells. When bound to extracellular matrix, IGFBP-5 is protected from proteolysis and potentiates IGF activity, but when it is soluble, IGFBP-5 is cleaved to a biologically inactive 21 kDa fragment (1, 2).

Images



Anti- IGFBP5 Picoband antibody, ABO12397, Western blottingAll lanes: Anti IGFBP5 (ABO12397) at 0.5ug/mlLane 1: U20S Whole Cell Lysate at 40ugLane 2: HELA Whole Cell Lysate at 40ugPredicted bind size: 31KDObserved bind size: 23KD

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