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Anti-IGFBP5 Picoband Antibody

Catalog # ABO12970

Specification

Anti-IGFBP5 Picoband Antibody - 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.

Anti-IGFBP5 Picoband Antibody - 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 MW KDa

Application Details
ELISA , 0.1-0.5 µg/ml, Human,
 Western blot, 0.1-0.5 µg/ml, Human,

Subcellular Localization
Secreted.

Tissue Specificity
Osteosarcoma, and at lower levels in liver, kidney and brain.

Contents
Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.

Immunogen
E. coli-derived human IGFBP5 recombinant protein (Position: A60-E272). Human IGFBP5 shares 96.7% and 96.2% amino acid (aa) sequence identity with mouse and rat IGFBP5, respectively.

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.**

Anti-IGFBP5 Picoband Antibody - 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

Anti-IGFBP5 Picoband Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-IGFBP5 Picoband Antibody - Images

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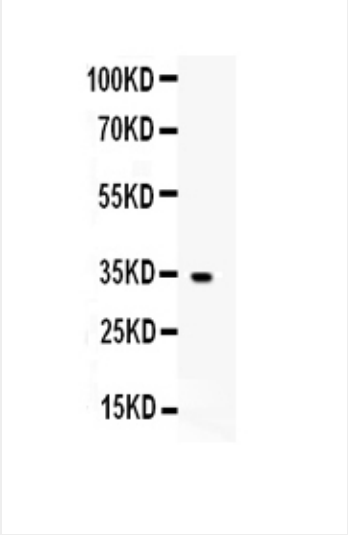

Figure 1. Western blot analysis of IGFBP5 using anti-IGFBP5 antibody (ABO12970).

Anti-IGFBP5 Picoband Antibody - 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).