

Anti-IGFBP5 Antibody Picoband™

Catalog Number: A01952-1

About IGFBP5

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).

Overview

Product Name	Anti-IGFBP5 Antibody Picoband™
Reactive Species	Human
Description	Boster Bio Anti-IGFBP5 Antibody Picoband™ catalog # A01952-1. Tested in ELISA, WB applications. This antibody reacts with Human.
Application	ELISA, WB
Clonality	Polyclonal
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Storage Instructions	Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	P24593

Technical Details

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.
Predicted Reactive Species	Human
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot.
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG

Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Dilute the sample so that the expected range of concentrations fall within the detection range of this kit. If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples. Some PubMed article(s) citing the expression level of this target are as follows: Boster Bio's internal QC testing used: Western blot, 0.1-0.5ug/ml, Human ELISA , 0.1-0.5ug/ml, Human

Anti-IGFBP5 Antibody Picoband™ (A01952-1) Images

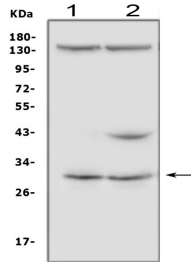


Figure 1. Western blot analysis of IGFBP5 using anti-IGFBP5 antibody (A01952-1).

Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.

Lane 1: human PC-3 whole cell lysates,

Lane 2: human Hela whole cell lysates.

After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-IGFBP5 antigen affinity purified polyclonal antibody (Catalog # A01952-1) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for IGFBP5 at approximately 31kD. The expected band size for IGFBP5 is at 31kD.

5 Publications Citing This Product

1. PubMed ID: 10.1007/s11626-016-0109-y, miR-143 regulates proliferation and differentiation of bovine skeletal muscle satellite cells by targeting IGFBP5

2. PubMed ID: 19476635, Expressions of IGFBP-5, cFLIP in cervical intraepithelial neoplasia, cervical carcinoma and their clinical significances: a molecular pathology

3. PubMed ID: 20003295, The effects of HIF-1alpha on gene expression profiles of NCI-H446 human small cell lung cancer cells

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