

Anti-IGFBP1 Picoband Antibody

Catalog # ABO10126

Product Information

Application	WB, IHC-P
Primary Accession	P08833
Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Insulin-like growth factor-binding protein 1(IGFBP1) detection. Tested with WB, IHC-P in Human.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	3484
Other Names	Insulin-like growth factor-binding protein 1, IBP-1, IGF-binding protein 1, IGFBP-1, Placental protein 12, PP12, IGFBP1, IBP1
Calculated MW	27904
Application Details	Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, By Heat Western blot, 0.1-0.5 µg/ml, Human
Subcellular Localization	Secreted.
Source	Eukaryota
Protein Name	Insulin-like growth factor-binding protein 1
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg NaN ₃ .
Immunogen	E.coli-derived human IGFBP1 recombinant protein (Position: A69-N259). Human IGFBP1 shares 67.8% and 69.3% amino acid (aa) sequence identity with mouse and rat IGFBP1, respectively.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins
Storage	At -20 °C for one year. After reconstitution, 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	IGFBP1
Synonyms	IBP1
Function	Multifunctional protein that plays a critical role in regulating the availability of IGFs such as IGF1 and IGF2 to their receptors and thereby regulates IGF-mediated cellular processes including cell migration, proliferation, differentiation or apoptosis in a cell-type specific manner (PubMed: 11397844 , PubMed: 15972819). Also plays a positive role in cell migration by interacting with integrin ITGA5:ITGB1 through its RGD motif (PubMed: 7504269). Mechanistically, binding to integrins leads to activation of focal adhesion kinase/PTK2 and stimulation of the mitogen-activated protein kinase (MAPK) pathway (PubMed: 11397844). Regulates cardiomyocyte apoptosis by suppressing HIF-1alpha/HIF1A ubiquitination and subsequent degradation (By similarity).
Cellular Location	Secreted.

Background

IGFBP1, Insulin-like growth factor-binding protein 1, also known as placental protein 12 (PP12), is a protein that in humans is encoded by the IGFBP1 gene. The IGFBP1 gene has 4 exons and spans 5.9 kb. And the IGFBP1 gene is localized to 7p13-p12 by in situ hybridization. This gene is a member of the Insulin-like growth factor-binding protein (IGFBP) family and encodes a protein with an IGFBP domain and a type-I thyroglobulin domain. The protein binds both insulin-like growth factors (IGFs) I and II and circulates in the plasma. Binding of this protein prolongs the half-life of the IGFs and alters their interaction with cell surface receptors. Alternate transcriptional splice variants, encoding different isoforms, have been characterized.

Images

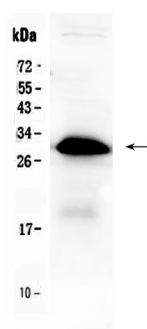


Figure 1. Western blot analysis of IGFBP1 using anti-IGFBP1 antibody (ABO10126). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: human placenta tissue 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-IGFBP1 antigen affinity purified polyclonal antibody (Catalog # ABO10126) at 0.5 μ g/mL overnight at 4 $^{\circ}$ 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 with Tanon 5200 system. A specific band was detected for IGFBP1 at approximately 30KD. The expected band size for IGFBP1 is at 30KD.

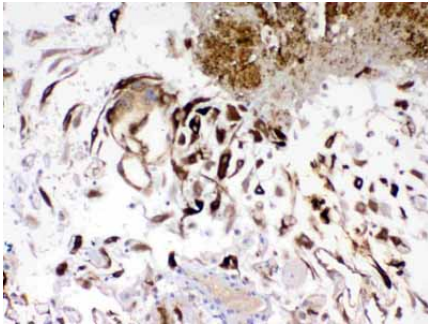


Figure 2. IHC analysis of IGFBP1 using anti- IGFBP1 antibody (ABO10126).IGFBP1 was detected in paraffin-embedded section of human placenta tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 μ g/ml rabbit anti- IGFBP1 Antibody (ABO10126) overnight at 4 $^{\circ}$ C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 $^{\circ}$ C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.