

Anti-COL18A1 Antibody Picoband™

Catalog Number: A01302-1

About COL18A1

Collagen alpha-1 (XVIII) chain is a protein that in humans is encoded by the COL18A1 gene. This gene encodes the alpha chain of type XVIII collagen. This collagen is one of the multiplexins, extracellular matrix proteins that contain multiple triple-helix domains (collagenous domains) interrupted by non-collagenous domains. A long isoform of the protein has an N-terminal domain that is homologous to the extracellular part of frizzled receptors. Proteolytic processing at several endogenous cleavage sites in the C-terminal domain results in production of endostatin, a potent antiangiogenic protein that is able to inhibit angiogenesis and tumor growth. Mutations in this gene are associated with Knobloch syndrome. The main features of this syndrome involve retinal abnormalities, so type XVIII collagen may play an important role in retinal structure and in neural tube closure. Alternative splicing results in multiple transcript variants.

Overview

Product Name	Anti-COL18A1 Antibody Picoband™
Reactive Species	Human
Description	Boster Bio Anti-COL18A1 Antibody Picoband™ catalog # A01302-1. Tested in WB applications. This antibody reacts with Human.
Application	WB
Clonality	Polyclonal
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg NaN ₃ .
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	P39060

Technical Details

Immunogen	E. coli-derived human COL18A1 recombinant protein (Position: H1572-K1754).
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	<p>Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.</p> <p>If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.</p> <p>Some PubMed article(s) citing the expression level of this target are as follows:</p> <p>Boster Bio's internal QC testing used:</p> <p>Western blot, 0.1-0.5ug/ml</p>

Anti-COL18A1 Antibody Picoband™ (A01302-1) Images

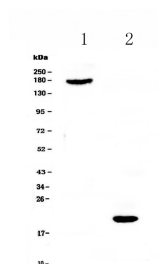


Figure 1. Western blot analysis of COL18A1 using anti-COL18A1 antibody (A01302-1).

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 COLO-320 whole cell lysates,

Lane 2: 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-COL18A1 antigen affinity purified polyclonal antibody (Catalog # A01302-1) 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 COL18A1 at approximately 180KD, 20KD. The expected band size for COL18A1 is at 178KD.

4 Publications Citing This Product

1. PubMed ID: 10.4161/cbt.8.5.7687, Combined endostatin and TRAIL gene transfer suppresses human hepatocellular carcinoma growth and angiogenesis in nude mice
2. PubMed ID: -, Zhou J, Li Y, Shi X, Hao S, Zhang F, Guo Z, Gao Y, Guo H, Liu L. Oridonin inhibits tumor angiogenesis and induces vessel normalization in experimental colon cancer. J Cancer 2021;12(11):3257-3264. doi:10.7150/jca.55929. Available from <https://www.jcancer.org/v12p3257.htm>
3. PubMed ID: 28789460, Preliminary investigation of the role of BTB domain-containing 3 gene in the proliferation and metastasis of hepatocellular carcinoma

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