

## Anti-Talin 1/TLN1 Antibody Picoband™

Catalog Number: A02859-1

### About TLN1

Talin-1 is a protein that in humans is encoded by the TLN1 gene. This gene encodes a cytoskeletal protein that is concentrated in areas of cell-substratum and cell-cell contacts. The encoded protein plays a significant role in the assembly of actin filaments and in spreading and migration of various cell types, including fibroblasts and osteoclasts. It codistributes with integrins in the cell surface membrane in order to assist in the attachment of adherent cells to extracellular matrices and of lymphocytes to other cells. The N-terminus of this protein contains elements for localization to cell-extracellular matrix junctions. The C-terminus contains binding sites for proteins such as beta-1-integrin, actin, and vinculin.

### Overview

Product Name	Anti-Talin 1/TLN1 Antibody Picoband™
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-Talin 1/TLN1 Antibody Picoband™ catalog # A02859-1. Tested in IHC, WB applications. This antibody reacts with Human, Mouse, Rat.
Application	IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na <sub>2</sub> HPO <sub>4</sub> , 0.05mg NaN <sub>3</sub> .
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	Q9Y490

### Technical Details

Immunogen	A synthetic peptide corresponding to a sequence in the middle region of human Talin 1, which shares 97.6% amino acid (aa) sequence identity with both mouse and rat Talin 1.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P).
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

Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml

## Anti-Talin 1/TLN1 Antibody Picoband™ (A02859-1) Images

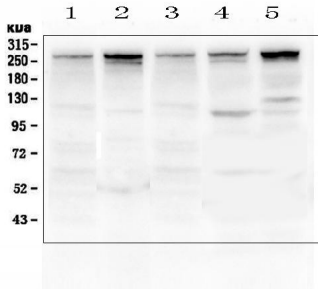


Figure 1. Western blot analysis of Talin 1 using anti-Talin 1 antibody (A02859-1). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.  
Lane 1: rat lung tissue lysates,  
Lane 2: mouse lung tissue lysates,  
Lane 3: human U-87MG whole cell lysates,  
Lane 4: human MDA-MB-231 whole cell lysates,  
Lane 5: human HepG2 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-Talin 1 antigen affinity purified polyclonal antibody (Catalog # A02859-1) 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 Talin 1 at approximately 270KD. The expected band size for Talin 1 is at 270KD.

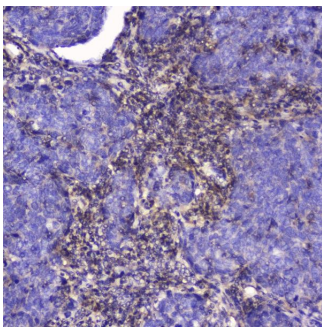


Figure 2. IHC analysis of Talin 1 using anti-Talin 1 antibody (A02859-1). Talin 1 was detected in paraffin-embedded section of human Lung cancer tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml rabbit anti-Talin 1 Antibody (A02859-1) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

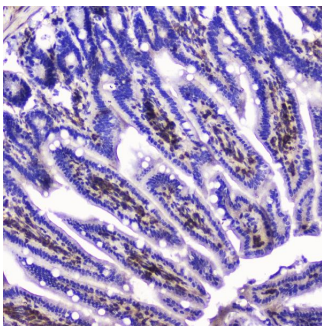


Figure 3. IHC analysis of Talin 1 using anti-Talin 1 antibody (A02859-1). Talin 1 was detected in paraffin-embedded section of mouse small intestine tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml rabbit anti-Talin 1 Antibody (A02859-1) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

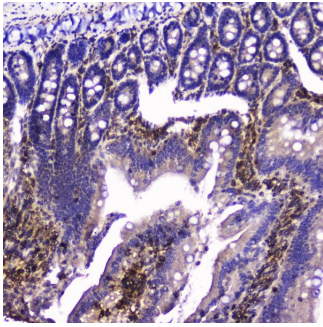


Figure 4. IHC analysis of Talin 1 using anti-Talin 1 antibody (A02859-1).

Talin 1 was detected in paraffin-embedded section of rat small intestine tissue. 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 2ug/ml rabbit anti-Talin 1 Antibody (A02859-1) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

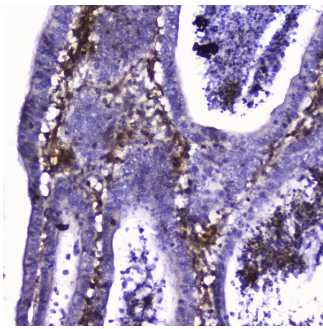


Figure 5. IHC analysis of Talin 1 using anti-Talin 1 antibody (A02859-1).

Talin 1 was detected in paraffin-embedded section of human intestinal cancer tissue. 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 2ug/ml rabbit anti-Talin 1 Antibody (A02859-1) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

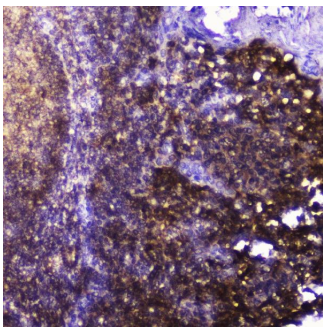


Figure 6. IHC analysis of Talin 1 using anti-Talin 1 antibody (A02859-1).

Talin 1 was detected in paraffin-embedded section of human tonsil tissue. 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 2ug/ml rabbit anti-Talin 1 Antibody (A02859-1) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

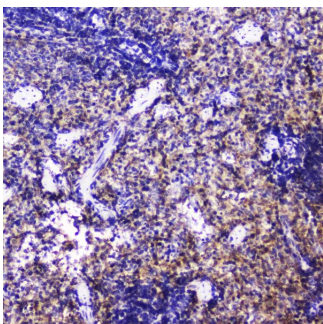


Figure 7. IHC analysis of Talin 1 using anti-Talin 1 antibody (A02859-1).

Talin 1 was detected in paraffin-embedded section of mouse spleen tissue. 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 2ug/ml rabbit anti-Talin 1 Antibody (A02859-1) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.



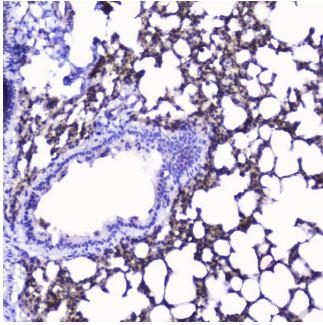


Figure 8. IHC analysis of Talin 1 using anti-Talin 1 antibody (A02859-1).

Talin 1 was detected in paraffin-embedded section of rat lung tissue. 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 2ug/ml rabbit anti-Talin 1 Antibody (A02859-1) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

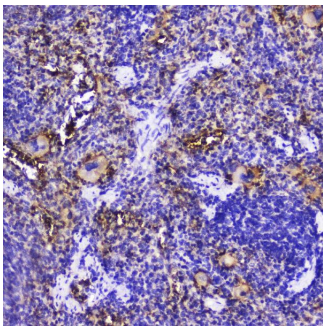


Figure 9. IHC analysis of Talin 1 using anti-Talin 1 antibody (A02859-1).

Talin 1 was detected in paraffin-embedded section of rat spleen tissue. 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 2ug/ml rabbit anti-Talin 1 Antibody (A02859-1) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

## 2 Publications Citing This Product

1. PubMed ID: 10.1096/fj.201801949RR, Talin promotes integrin activation accompanied by generation of tension in talin and an increase in osmotic pressure in neurite outgrowth
2. PubMed ID: 32742451, Song Y, Li C, Fu Y, Xie Q, Guo J, Li G, Wu H. Inward Tension of Talin and Integrin-related Osmotic Pressure are Involved Synergetically in the Invasion and Metastasis of Non-small Cell Lung Cancer. J Cancer. 2020 Jun 23;11(17):5032-5041. doi:10.7150/jca.45494. PMID:

Visit [bosterbio.com/anti-talin-1-picoband-trade-antibody-a02859-1-boster.html](https://www.bosterbio.com/anti-talin-1-picoband-trade-antibody-a02859-1-boster.html) to see all 2 publications.

## Submit a product review to Biocompare.com

Submit a review of this product to Biocompare.com to receive a \$20 Amazon.com giftcard! Your reviews help your fellow scientists make the right decisions. Thank you for your contribution.



Anti-Talin 1/TLN1 Antibody <sup>™</sup>