

## 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

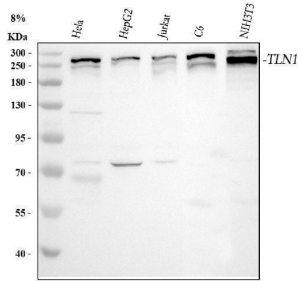
|                      |  |
|----------------------|--|
| Product Name         | Anti-Talin 1/TLN1 Antibody Picoband®   |
| Reactive Species     | Human, Mouse, Rat  |
| Description          | Boster Bio Anti-Talin 1/TLN1 Antibody Picoband® catalog # A02859-1. Tested in IHC, WB applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance. |
| 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

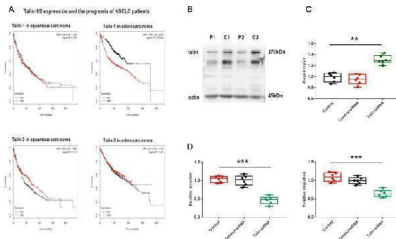
|                               |  |
|-------------------------------|--|
| Immunogen                     | A synthetic peptide corresponding to a sequence in the middle region of human Talin 1, which shares 97.6% amino acid (aa) sequence identity with both mouse and rat Talin 1.     |
| Recommended 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 | Western blot, 0.1-0.5ug/ml<br>Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml |

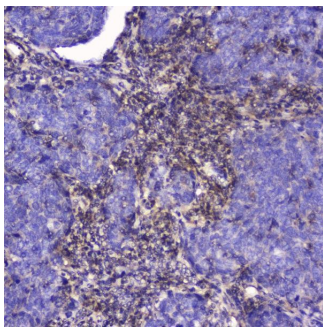
## Anti-Talin 1/TLN1 Antibody Picoband® (A02859-1) Images



Western blot analysis of Talin 1/TLN1 using anti-Talin 1/TLN1 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 30 ug of sample under reducing conditions. Lane 1: human Hela whole cell lysates, Lane 2: human HepG2 whole cell lysates, Lane 3: human Jurkat whole cell lysates, Lane 4: rat C6 whole cell lysates, Lane 5: mouse NIH/3T3 whole cell lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA 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/TLN1 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 1:5000 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/TLN1 at approximately 270 kDa. The expected band size for Talin 1/TLN1 is at 270 kDa.

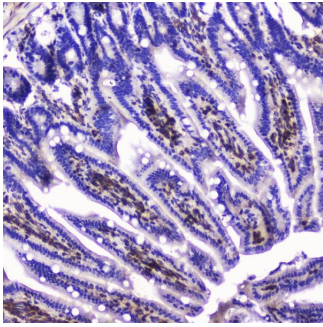


Talin-1 rather than talin-2 is associated with malignancy in NSCLC ( A ) Kaplan-Meier plots of overall survival of patients with squamous carcinoma and adenocarcinoma, stratified by talin-1 and talin-2 expression. ( B ) Western blotting of talin protein levels in fresh NSCLC tissue ( C ) and adjacent normal tissue ( P ). ( C ) Normalized quantitative analysis of the wound closure rate in A549 cells transfected with control siRNA or talin-1 siRNA. ( D ) Quantitative analysis of the migration and invasion rates. \*\*P

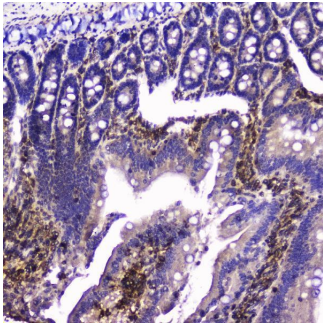


IHC analysis of Talin 1 using anti-Talin 1 antibody (A02859-1). Talin 1 was detected in paraffin-embedded section of human Lung cancer tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. 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.

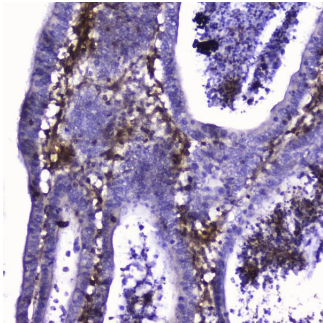
IHC analysis of Talin 1 using anti-Talin 1 antibody (A02859-1). Talin 1 was detected in paraffin-embedded section of mouse small intestine tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was



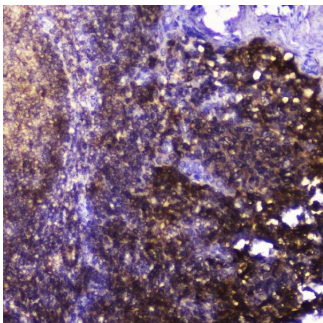
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IHC analysis of Talin 1 using anti-Talin 1 antibody (A02859-1).Talin 1 was detected in paraffin-embedded section of rat small intestine tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 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.

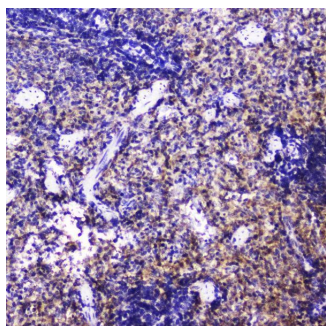


IHC analysis of Talin 1 using anti-Talin 1 antibody (A02859-1).Talin 1 was detected in paraffin-embedded section of human intestinal cancer tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat 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.

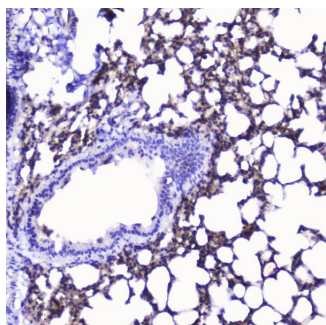


IHC analysis of Talin 1 using anti-Talin 1 antibody (A02859-1).Talin 1 was detected in paraffin-embedded section of human tonsil tissue . Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. 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.

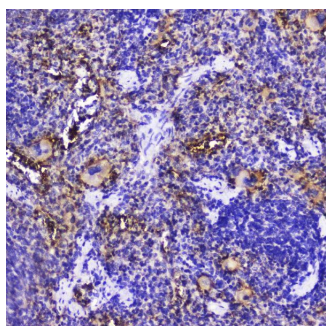
IHC analysis of Talin 1 using anti-Talin 1 antibody (A02859-1).Talin 1 was detected in paraffin-embedded section of mouse spleen tissue . Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was



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.



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.



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

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