

## Anti-TTC11/FIS1 Antibody Picoband®

Catalog Number: A01932-3

### About FIS1

Mitochondrial fission 1 protein (FIS1) is a protein that in humans is encoded by the FIS1 gene on chromosome 7. It is mapped to 7q22.1. The balance between fission and fusion regulates the morphology of mitochondria. TTC11 is a component of a mitochondrial complex that promotes mitochondrial fission. Its role in mitochondrial fission thus implicates it in the regulation of mitochondrial morphology, the cell cycle, and apoptosis. By extension, the protein is involved in associated diseases, including neurodegenerative diseases and cancers.

### Overview

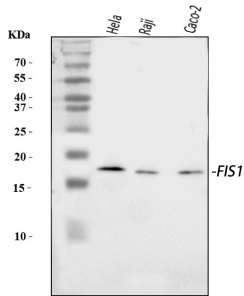
Product Name	Anti-TTC11/FIS1 Antibody Picoband®
Reactive Species	Human, Rat
Description	Boster Bio Anti-TTC11/FIS1 Antibody Picoband® catalog # A01932-3. Tested in ELISA, IF, IHC, ICC, WB applications. This antibody reacts with Human, Rat. The brand Picoband indicates this is a premium antibody that 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	ELISA, IF, IHC, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na <sub>2</sub> HPO <sub>4</sub> .
Storage Instructions	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 freezing and thawing.
Host	Rabbit
Uniprot ID	Q9Y3D6

### Technical Details

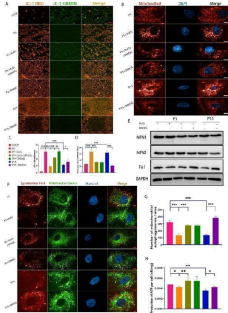
Immunogen	E.coli-derived human TTC11/FIS1 recombinant protein (Position: E18-S152).
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P) and ICC.
Cross 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, 0.25-0.5 ug/ml, Human Immunohistochemistry(Paraffin-embedded Section), 2-5 ug/ml, Human, Rat Immunocytochemistry/Immunofluorescence, 5 ug/ml, Human ELISA, 0.1-0.5 ug/ml, -

## Anti-TTC11/FIS1 Antibody Picoband® (A01932-3) Images

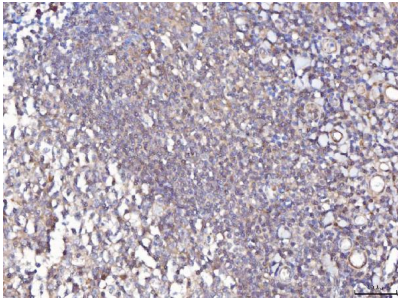


Western blot analysis of TTC11/FIS1 using anti-TTC11/FIS1 antibody (A01932-3). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human HeLa whole cell lysates, Lane 2: human Raji whole cell lysates, Lane 3: human Caco-2 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-TTC11/FIS1 antigen affinity purified polyclonal antibody (Catalog # A01932-3) 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 TTC11/FIS1 at approximately 17 kDa. The expected band size for TTC11/FIS1 is at 17 kDa.

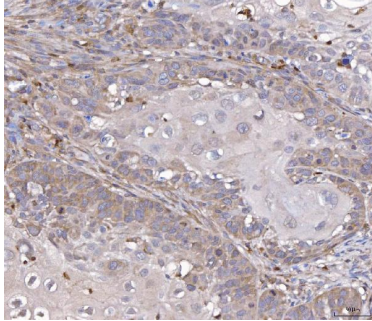


DMOG treatment ameliorates mitochondrial dysfunction and enhances mitophagy and ATP production in aged MSCs. ( A ) Representative JC-1 fluorescence images showing mitochondrial membrane potential in different groups: CCCP (positive control for mitochondrial depolarization), P5 MSCs, P5 + H<sub>2</sub>O<sub>2</sub>-treated MSCs, P5 + H<sub>2</sub>O<sub>2</sub>+DMOG-treated MSCs, P15 MSCs, and P15 + DMOG-treated MSCs. JC-1 red fluorescence indicates high mitochondrial membrane potential, whereas green fluorescence indicates depolarized mitochondria. Scale bar = 100 um. ( B ) Representative MitoSox Red fluorescence images showing mitochondrial ROS levels in different treatment groups. Scale bar = 10 um. ( C , D ) Quantitative analysis of the mitochondrial membrane potential ( C ) and mitochondrial ROS levels ( D ). ( E ) Western blot analysis showing the expression levels of mitophagy-related proteins (MFN1, MFN2, and Fis1) in P5 and P15 MSCs with or without H<sub>2</sub>O<sub>2</sub> and DMOG treatment. GAPDH was used as a loading control. ( F ) Representative confocal images of co-staining with LysoTracker Red (lysosomes) and MitoTracker Green (mitochondria) in MSCs under different conditions. Scale bar = 10 um. ( G ) Quantitative analysis of the number of mitophagosomes per cell in the different groups. ( H ) Quantitative analysis of ATP production per cell in the different groups. Data are expressed as the mean ± SEM ( n = 3). \* p

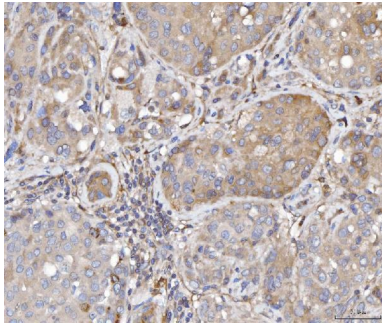
IHC analysis of TTC11/FIS1 using anti-TTC11/FIS1 antibody (A01932-3). TTC11/FIS1 was detected in a paraffin-embedded section of human chronic tonsillitis tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then



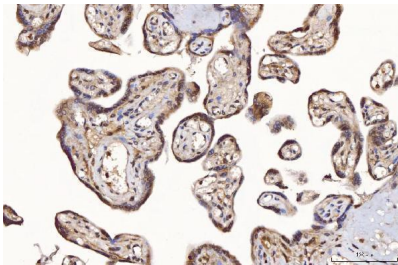
incubated with 2 ug/ml rabbit anti-TTC11/FIS1 Antibody (A01932-3) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



IHC analysis of TTC11/FIS1 using anti-TTC11/FIS1 antibody (A01932-3). TTC11/FIS1 was detected in a paraffin-embedded section of human laryngeal squamous cell carcinomas tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-TTC11/FIS1 Antibody (A01932-3) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

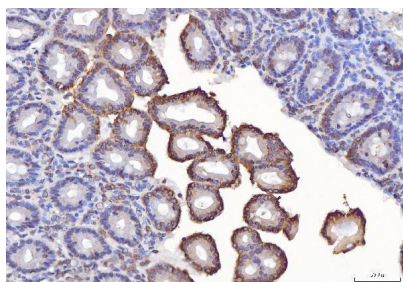


IHC analysis of TTC11/FIS1 using anti-TTC11/FIS1 antibody (A01932-3). TTC11/FIS1 was detected in a paraffin-embedded section of human liver cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-TTC11/FIS1 Antibody (A01932-3) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

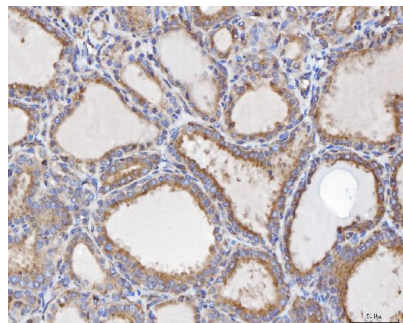


IHC analysis of TTC11/FIS1 using anti-TTC11/FIS1 antibody (A01932-3). TTC11/FIS1 was detected in a paraffin-embedded section of human placenta tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-TTC11/FIS1 Antibody (A01932-3) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

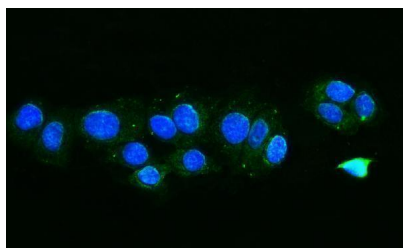
IHC analysis of TTC11/FIS1 using anti-TTC11/FIS1 antibody (A01932-3). TTC11/FIS1 was detected in a paraffin-embedded section of rat gaster tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked



with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-TTC11/FIS1 Antibody (A01932-3) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



IHC analysis of TTC11/FIS1 using anti-TTC11/FIS1 antibody (A01932-3). TTC11/FIS1 was detected in a paraffin-embedded section of human thyroid gland tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-TTC11/FIS1 Antibody (A01932-3) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



IF analysis of TTC11/FIS1 using anti-TTC11/FIS1 antibody (A01932-3). TTC11/FIS1 was detected in an immunocytochemical section of MCF-7 cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5 ug/mL rabbit anti-TTC11/FIS1 Antibody (A01932-3) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

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### Anti-TTC11/FIS1 Antibody

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