

## Anti-Dynamin 1/DNM1 Antibody Picoband™

Catalog Number: A02536-2

### About DNM1

Dynamin-1 is a protein that in humans is encoded by the DNM1 gene. This gene encodes a member of the dynamin subfamily of GTP-binding proteins. The encoded protein possesses unique mechanochemical properties used to tubulate and sever membranes, and is involved in clathrin-mediated endocytosis and other vesicular trafficking processes. Actin and other cytoskeletal proteins act as binding partners for the encoded protein, which can also self-assemble leading to stimulation of GTPase activity. More than sixty highly conserved copies of the 3' region of this gene are found elsewhere in the genome, particularly on chromosomes Y and 15. Alternatively spliced transcript variants encoding different isoforms have been described.

### Overview

Product Name	Anti-Dynamin 1/DNM1 Antibody Picoband™
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-Dynamin 1/DNM1 Antibody Picoband™ catalog # A02536-2. Tested in ELISA, Flow Cytometry, IHC, ICC, WB applications. This antibody reacts with Human, Mouse, Rat.
Application	ELISA, Flow Cytometry, IHC, ICC, 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	Q05193

### Technical Details

Immunogen	E. coli-derived human Dynamin 1 recombinant protein (Position: W616-D667).
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), IHC(F) 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	<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> <p>Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml</p> <p>Immunohistochemistry (Frozen Section), 0.5-1ug/ml</p> <p>Immunocytochemistry, 0.5-1ug/ml</p> <p>Flow Cytometry, 1-3ug/1x10<sup>6</sup> cells Direct ELISA, 0.1-0.5ug/ml</p>

## Anti-Dynamin 1/DNM1 Antibody Picoband™ (A02536-2) Images

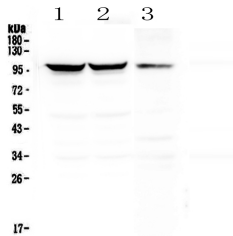


Figure 1. Western blot analysis of Dynamin 1 using anti-Dynamin 1 antibody (A02536-2).

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 brain tissue lysates,

Lane 2: mouse brain tissue lysates,

Lane 3: mouse NIH3T3 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-Dynamin 1 antigen affinity purified polyclonal antibody (Catalog # A02536-2) 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 Dynamin 1 at approximately 97KD. The expected band size for Dynamin 1 is at 97KD.

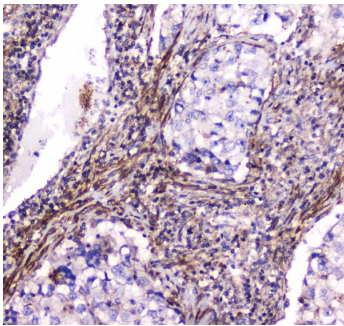


Figure 2. IHC analysis of Dynamin 1 using anti-Dynamin 1 antibody (A02536-2).

Dynamin 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 1ug/ml rabbit anti-Dynamin 1 Antibody (A02536-2) 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.

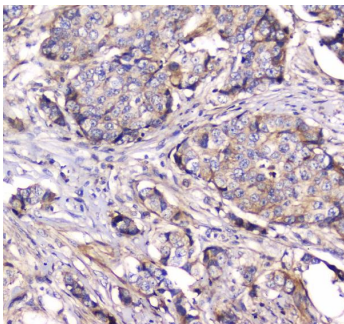


Figure 3. IHC analysis of Dynamin 1 using anti-Dynamin 1 antibody (A02536-2).

Dynamin 1 was detected in paraffin-embedded section of human mammary 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 1ug/ml rabbit anti-Dynamin 1 Antibody (A02536-2) 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.

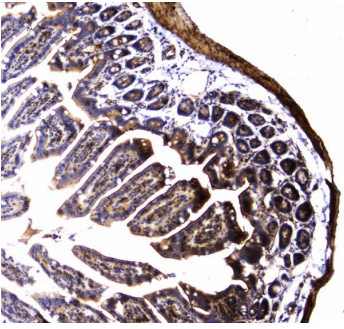


Figure 4. IHC analysis of Dynamin 1 using anti-Dynamin 1 antibody (A02536-2). Dynamin 1 was detected in paraffin-embedded section of mouse small intestine tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-Dynamin 1 Antibody (A02536-2) 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.

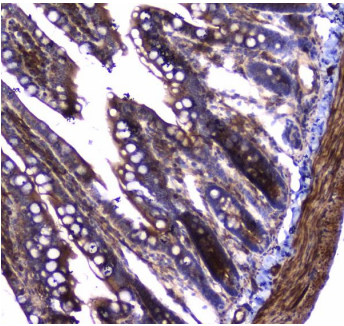


Figure 5. IHC analysis of Dynamin 1 using anti-Dynamin 1 antibody (A02536-2). Dynamin 1 was detected in paraffin-embedded section of rat small intestine tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-Dynamin 1 Antibody (A02536-2) 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.

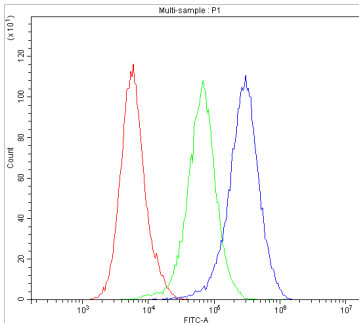


Figure 6. Flow Cytometry analysis of U251 cells using anti-Dynamin 1 antibody (A02536-2). Overlay histogram showing U251 cells stained with A02536-2 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-Dynamin 1 Antibody (A02536-2, 1ug/1x10<sup>6</sup> cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x10<sup>6</sup> cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x10<sup>6</sup>) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

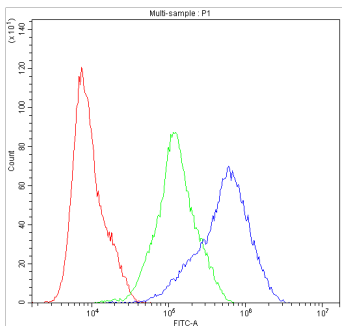
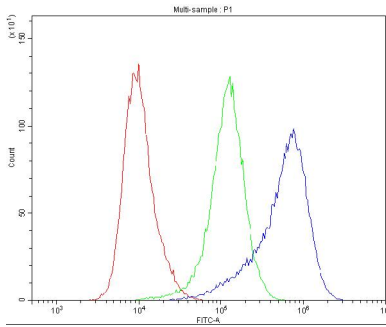


Figure 7. Flow Cytometry analysis of A549 cells using anti-Dynamin 1 antibody (A02536-2). Overlay histogram showing A549 cells stained with A02536-2 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-Dynamin 1 Antibody (A02536-2, 1ug/1x10<sup>6</sup> cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x10<sup>6</sup> cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x10<sup>6</sup>) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

Figure 8. Flow Cytometry analysis of U20S cells using anti-Dynamin 1 antibody (A02536-2). Overlay histogram showing U20S cells stained with



A02536-2 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-DNM1 Antibody (A02536-2, 1ug/1x10<sup>6</sup> cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x10<sup>6</sup> cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x10<sup>6</sup>) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

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