

## Anti-Dynamitin 2/DCTN2 Antibody Picoband®

Catalog Number: A07698-2

### About DCTN2

This gene encodes a 50-kD subunit of dynactin, a macromolecular complex consisting of 10-11 subunits ranging in size from 22 to 150 kD. Dynactin binds to both microtubules and cytoplasmic dynein. It is involved in a diverse array of cellular functions, including ER-to-Golgi transport, the centripetal movement of lysosomes and endosomes, spindle formation, chromosome movement, nuclear positioning, and axonogenesis. This subunit is present in 4-5 copies per dynactin molecule. It contains three short alpha-helical coiled-coil domains that may mediate association with self or other dynactin subunits. It may interact directly with the largest subunit (p150) of dynactin and may affix p150 in place. Multiple alternatively spliced transcript variants encoding distinct isoforms have been found for this gene.

### Overview

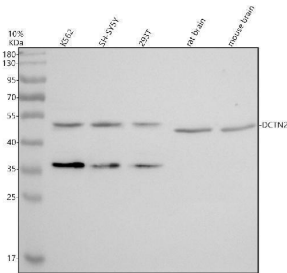
Product Name	Anti-Dynamitin 2/DCTN2 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-Dynamitin 2/DCTN2 Antibody Picoband® catalog # A07698-2. Tested in WB, IHC, ICC/IF, IP, Flow Cytometry, ELISA applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband 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	ELISA, Flow Cytometry, IP, 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	Q13561

### Technical Details

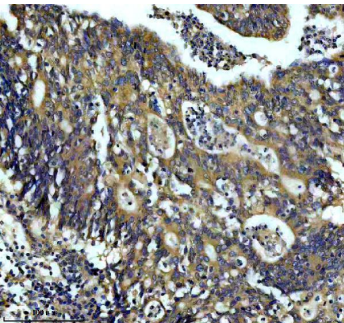
Immunogen	E.coli-derived human Dynamitin 2/DCTN2 recombinant protein (Position: R14-N381).
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.25-0.5 ug/ml, Human, Mouse, Rat Immunohistochemistry(Paraffin-embedded Section), 2-5 ug/ml, Human

Immunocytochemistry/Immunofluorescence, 5 ug/ml, Human  
Immunoprecipitation, 0.5-2 ug/ml, Human  
Flow Cytometry (Fixed), 1-3 ug/1x10<sup>6</sup> cells, Human  
ELISA, 0.1-0.5 ug/ml

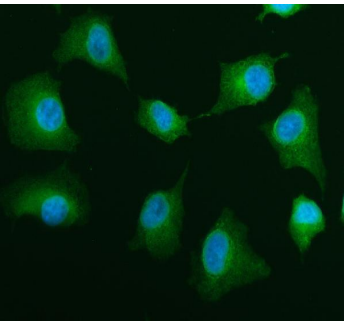
## Anti-Dynamitin 2/DCTN2 Antibody Picoband® (A07698-2) Images



Western blot analysis of Dynamitin 2/DCTN2 using anti-Dynamitin 2/DCTN2 antibody (A07698-2). Electrophoresis was performed on a 10% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human K562 whole cell lysates, Lane 2: human SH-SY5Y whole cell lysates, Lane 3: human 293T whole cell lysates, Lane 4: rat brain tissue lysates, Lane 5: mouse brain tissue 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-Dynamitin 2/DCTN2 antigen affinity purified polyclonal antibody (A07698-2) 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 1:5000 for 1.5 hour at RT. The signal is developed using an ECL Plus Western Blotting Substrate (Catalog # AR1196-200) with Tanon 5200 system. A specific band was detected for Dynamitin 2/DCTN2 at approximately 50 kDa. The expected band size for Dynamitin 2/DCTN2 is at 44 kDa.

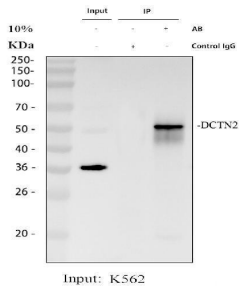


IHC analysis of Dynamitin 2/DCTN2 using anti-Dynamitin 2/DCTN2 antibody (A07698-2). Dynamitin 2/DCTN2 was detected in a paraffin-embedded section of human colon cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-Dynamitin 2/DCTN2 Antibody (A07698-2) 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.

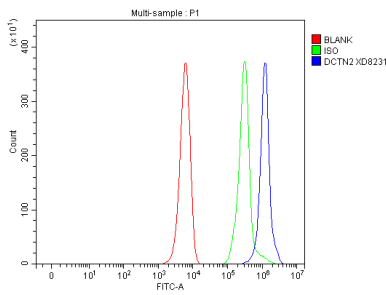


IF analysis of Dynamitin 2/DCTN2 using anti-Dynamitin 2/DCTN2 antibody (A07698-2). Dynamitin 2/DCTN2 was detected in an immunocytochemical section of A549 cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5 ug/mL rabbit anti-Dynamitin 2/DCTN2 Antibody (A07698-2) overnight at 4°C. Fluoro488 Conjugated Goat Anti-Rabbit IgG (BA1127) was used as secondary antibody at 1:500 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.

Immunoprecipitating Dynamitin 2/DCTN2 in K562 whole cell lysate. Western blot analysis of Dynamitin 2/DCTN2 using



anti-Dynamitin 2/DCTN2 antibody (A07698-2). Lane 1: K562 whole cell lysates (30ug), Lane 2: Rabbit control IgG instead of anti-Dynamitin 2/DCTN2 antibody in K562 whole cell lysate, Lane 3: anti-Dynamitin 2/DCTN2 antibody (2ug) + K562 whole cell lysate (500ug). After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-Dynamitin 2/DCTN2 antigen affinity purified polyclonal antibody (A07698-2) at a dilution of 0.5 ug/mL and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for Dynamitin 2/DCTN2 at approximately 50 kDa. The expected band size for Dynamitin 2/DCTN2 is at 44 kDa.



Flow Cytometry analysis of K562 cells using anti-Dynamitin 2/DCTN2 antibody (A07698-2). Overlay histogram showing K562 cells stained with A07698-2 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-Dynamitin 2/DCTN2 Antibody (A07698-2, 1 ug/1x10<sup>6</sup> cells) for 30 min at 20°C. Fluoro488 conjugated goat anti-rabbit IgG (BA1127, 5-10 ug/1x10<sup>6</sup> cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x10<sup>6</sup>) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

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### Anti-Dynamitin 2/DCTN2 Antibody

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