

Anti-Calpain 3/CAPN3 Antibody Picoband®

Catalog Number: A02170-2

About Calpain 3/CAPN3

Calpain-3 is a protein that in humans is encoded by the CAPN3 gene. Calpain, a heterodimer consisting of a large and a small subunit, is a major intracellular protease, although its function has not been well established. This gene encodes a muscle-specific member of the calpain large subunit family that specifically binds to titin. Mutations in this gene are associated with limb-girdle muscular dystrophies type 2A. Alternate promoters and alternative splicing result in multiple transcript variants encoding different isoforms and some variants are ubiquitously expressed.

Overview

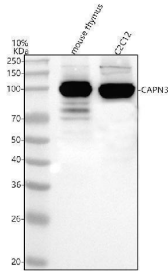
Product Name	Anti-Calpain 3/CAPN3 Antibody Picoband®
Reactive Species	Human, Mouse
Description	Boster Bio Anti-Calpain 3/CAPN3 Antibody Picoband® catalog # A02170-2. Tested in WB, FCM, ELISA applications. This antibody reacts with Human, Mouse. The brand Picoband indicates this is a premium antibody 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, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ .
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	P20807

Technical Details

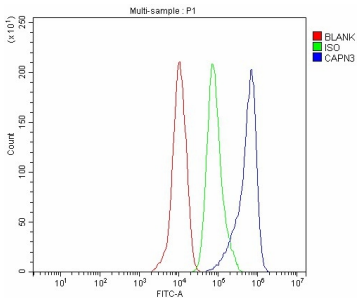
Immunogen	E.coli-derived human Calpain 3/CAPN3 recombinant protein (Position: I42-D764). Human CAPN3 shares 93.5% and 94.2% amino acid (aa) sequence identity with mouse and rat CAPN3, respectively.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot.
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, Mouse

	ELISA, 0.1-0.5 ug/ml, -
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Anti-Calpain 3/CAPN3 Antibody Picoband® (A02170-2) Images



Western blot analysis of Calpain 3/CAPN3 using anti-Calpain 3/CAPN3 antibody (A02170-2). 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 30 ug of sample under reducing conditions. Lane 1: mouse thymus tissue lysates, Lane 2: mouse C2C12 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-Calpain 3/CAPN3 antigen affinity purified polyclonal antibody (Catalog # A02170-2) 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 Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for Calpain 3/CAPN3 at approximately 99 kDa. The expected band size for Calpain 3/CAPN3 is at 99 kDa.



Flow Cytometry analysis of THP-1 cells using anti-Calpain 3/CAPN3 antibody (A02170-2). Overlay histogram showing THP-1 cells stained with A02170-2 (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-Calpain 3/CAPN3 Antibody (A02170-2, 1 ug/1x10⁶ cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10 ug/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x10⁶) 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-Calpain 3/CAPN3 Antibody

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