BOSTER
antibody and ELISA experts

BOSTER BIOLOGICAL TECHNOLOGY
3942 B Valley Ave, Pleasanton, CA 94566
888-466-3604 | support@bosterbio.com | www.bosterbio.com

Anti-P97/DAP5/EIF4G2 Antibody Picoband®

Catalog Number: A03888-1

About EIF4G2

Eukaryotic translation initiation factor 4 gamma 2 (also called p97, NAT1, and DAP-5) is a protein that in humans is encoded by the EIF4G2 gene. Translation initiation is mediated by specific recognition of the cap structure by eukaryotic translation initiation factor 4F (eIF4F), which is a cap binding protein complex that consists of three subunits: eIF4A, eIF4E and eIF4G. The protein encoded by this gene shares similarity with the C-terminal region of eIF4G that contains the binding sites for eIF4A and eIF3; eIF4G, in addition, contains a binding site for eIF4E at the N-terminus. Unlike eIF4G, which supports cap-dependent and independent translation, this gene product functions as a general repressor of translation by forming translationally inactive complexes. In vitro and in vivo studies indicate that translation of this mRNA initiates exclusively at a non-AUG (GUG) codon. Alternatively spliced transcript variants encoding different isoforms of this gene have been described.

Overview

Product Name	Anti-P97/DAP5/EIF4G2 Antibody Picoband®
Reactive Species	Human, Monkey, Mouse, Rat
Description	Boster Bio Anti-P97/DAP5/EIF4G2 Antibody Picoband® catalog # A03888-1. Tested in ELISA, Flow Cytometry, IP, IF, ICC, WB applications. This antibody reacts with Human, Monkey, 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, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
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	P78344

Technical Details

Immunogen	E.coli-derived human P97/DAP5/EIF4G2 recombinant protein (Position: E91-E790).
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 ICC.
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG

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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, Monkey, Mouse, Rat Immunocytochemistry/Immunofluorescence, 5 ug/ml, Human Immunoprecipitation, 0.5-2 ug/ml, Human Flow Cytometry (Fixed), 1-3 ug/1x10^6 cells, Human ELISA, 0.1-0.5 ug/ml, -

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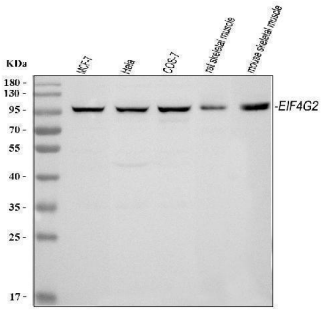
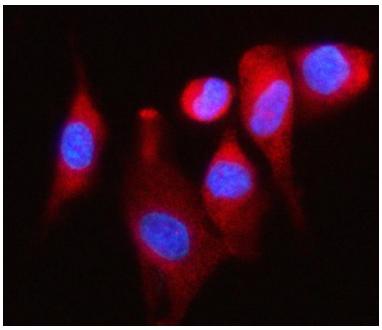
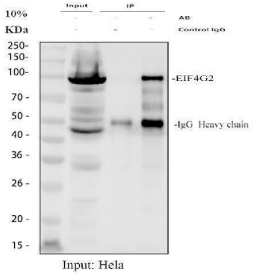
Anti-P97/DAP5/EIF4G2 Antibody Picoband® (A03888-1) Images



Western blot analysis of P97/DAP5/EIF4G2 using anti-P97/DAP5/EIF4G2 antibody (A03888-1). 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 MCF-7 whole cell lysates, Lane 2: human Hela whole cell lysates, Lane 3: monkey COS-7 whole cell lysates, Lane 4: rat skeletal muscle tissue lysates, Lane 5:mouse skeletal muscle 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-P97/DAP5/EIF4G2 antigen affinity purified polyclonal antibody (Catalog # A03888-1) 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 P97/DAP5/EIF4G2 at approximately 97 kDa. The expected band size for P97/DAP5/EIF4G2 is at 102 kDa.



IF analysis of P97/DAP5/EIF4G2 using anti-P97/DAP5/EIF4G2 antibody (A03888-1). P97/DAP5/EIF4G2 was detected in an immunocytochemical section of U87 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-P97/DAP5/EIF4G2 Antibody (A03888-1) overnight at 4°C. Cy3 Conjugated Goat Anti-Rabbit IgG (BA1032) 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 (IP) P97/DAP5/EIF4G2 in Hela whole cell lysate. Western blot analysis of P97/DAP5/EIF4G2 using anti-P97/DAP5/EIF4G2 antibody (A03888-1); Lane 1: Hela whole cell lysates (30ug); Lane 2: Rabbit control IgG instead of anti-P97/DAP5/EIF4G2 antibody in Hela whole cell lysate; Lane 3: anti-P97/DAP5/EIF4G2 antibody (2ug) + Hela whole cell lysate (500ug). After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-P97/DAP5/EIF4G2 antigen affinity purified polyclonal antibody (A03888-1) 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 # AR1196-200). A specific band was detected for P97/DAP5/EIF4G2 at approximately 97 kDa. The expected band size for P97/DAP5/EIF4G2 is at 102 kDa.

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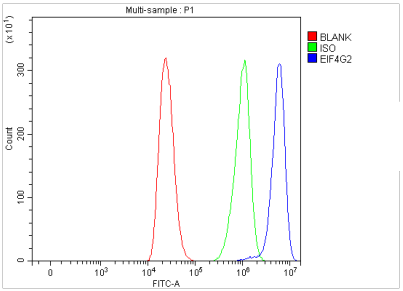

Flow Cytometry analysis of THP-1 cells using anti-P97/DAP5/EIF4G2 antibody (A03888-1). Overlay histogram showing THP-1 cells stained with A03888-1 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-P97/DAP5/EIF4G2 Antibody (A03888-1, 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.

Anti-P97/DAP5/EIF4G2 Antibody

For Research Use Only. Not for use in diagnostic procedures.