BOSTER
antibody and ELISA experts

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Anti-Flotillin 1/FLOT1 Antibody Picoband®

Catalog Number: PA2033

About FLOT1

FLOT1 (Flotillin 1), is a protein that in humans is encoded by the FLOT1 gene. The International Radiation Hybrid Mapping Consortium mapped the FLOT1 gene to chromosome 6. Bickel et al. (1997) found that mouse Flot1 behaves as a resident integral membrane protein of caveolae. It consistently copurified with Flot2 and with caveolin-1 in the purification of caveolin-rich membranes. Hazarika et al. (1999) found that stable transfection of Flot1, which they called ESA/flotillin-2, in COS-1 cells induced filopodia formation and changed the epithelial morphology to that of neuronal cells. Santamaria et al. (2005) found that prostate tumor overexpressed gene-1 interacted with flotillin-1 in detergent-insoluble membrane fractions. Flotillin-1 colocalized with PTOV1 at the plasma membrane and in the nucleus, and it entered the nucleus concomitant with PTOV1 shortly before initiation of S phase.

Overview

Product Name	Anti-Flotillin 1/FLOT1 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-Flotillin 1/FLOT1 Antibody catalog # PA2033. Tested in IF, IP, IHC, WB 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	IP, IF, IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na2HPO4.
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	O75955

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence in the middle region of human Flotillin 1, different from the related rat and mouse sequences by one amino acid.
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).
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, 0.1-0.5ug/ml, Human, Mouse, Rat Immunohistochemistry(Paraffin-embedded Section), 2-5 ug/ml, Human Immunofluorescence, 5 ug/ml, Human Immunoprecipitation, 0.5-2 ug/ml, Human

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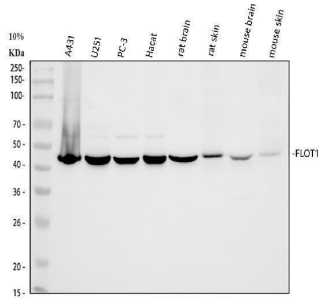
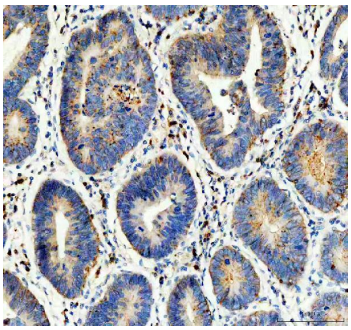
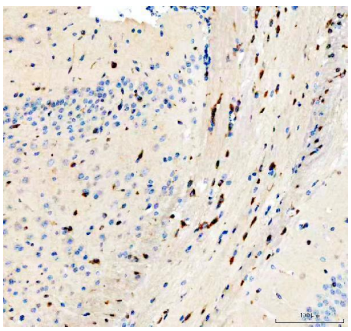
Anti-Flotillin 1/FLOT1 Antibody Picoband® (PA2033) Images



Western blot analysis of FLOT1 using anti-FLOT1 antibody (PA2033). 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 A431 whole cell lysates, Lane 2: human U251 whole cell lysates, Lane 3: human PC-3 whole cell lysates, Lane 4: human Hacat whole cell lysates, Lane 5: rat brain tissue lysates, Lane 6: rat skin tissue lysates, Lane 7: mouse brain tissue lysates, Lane 8: mouse skin 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-FLOT1 antigen affinity purified polyclonal antibody (Catalog # PA2033) 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 FLOT1 at approximately 47 kDa. The expected band size for FLOT1 is at 47 kDa.



IHC analysis of FLOT1 using anti-FLOT1 antibody (PA2033). FLOT1 was detected in a paraffin-embedded section of human stomach camcer 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-FLOT1 Antibody (PA2033) 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 FLOT1 using anti-FLOT1 antibody (PA2033). FLOT1 was detected in a paraffin-embedded section of mouse brain 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-FLOT1 Antibody (PA2033) 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 FLOT1 using anti-FLOT1 antibody (PA2033). FLOT1 was detected in a paraffin-embedded section of

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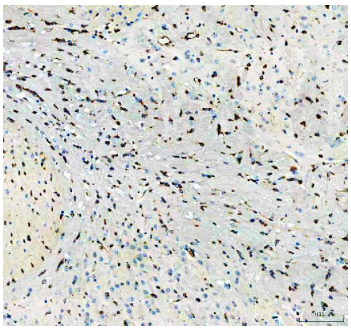
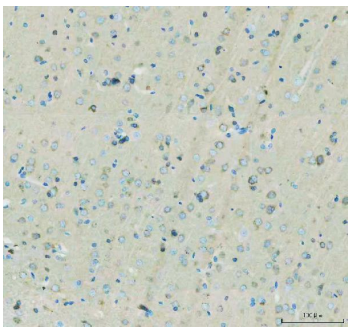
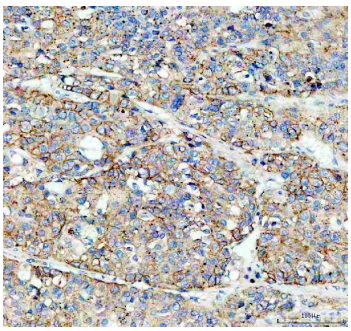


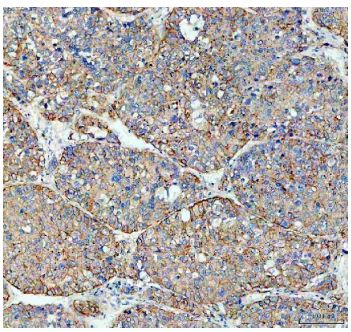
mouse brain tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-FLOT1 Antibody (PA2033) overnight at 4°C. Peroxidase Conjugated Goat 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 FLOT1 using anti-FLOT1 antibody (PA2033). FLOT1 was detected in a paraffin-embedded section of rat brain 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-FLOT1 Antibody (PA2033) 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 FLOT1 using anti-FLOT1 antibody (PA2033). FLOT1 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-FLOT1 Antibody (PA2033) 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 FLOT1 using anti-FLOT1 antibody (PA2033). FLOT1 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-FLOT1 Antibody (PA2033) 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 FLOT1 using anti-FLOT1 antibody (PA2033). FLOT1 was detected in a paraffin-embedded section of human thyroid 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

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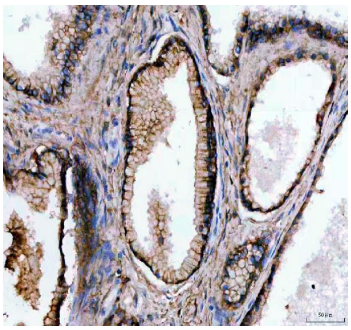
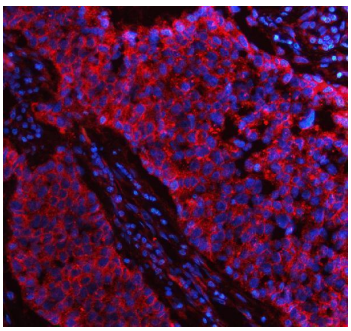
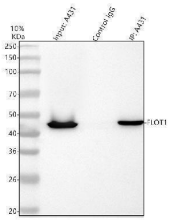


ug/ml rabbit anti-FLOT1 Antibody (PA2033) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



IF analysis of FLOT1 using anti-FLOT1 antibody (PA2033). FLOT1 was detected in a paraffin-embedded section of human non-small cell lung 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 5 ug/mL rabbit anti-FLOT1 Antibody (PA2033) 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 FLOT1 in A431 whole cell lysate. Western blot analysis of FLOT1 using anti-FLOT1 antibody (PA2033). Lane 1: A431 whole cell lysates (30ug), Lane 2: Rabbit control IgG instead of anti-FLOT1 antibody in A431 whole cell lysate, Lane 3: anti-FLOT1 antibody (2ug) + A431 whole cell lysate (500ug). After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-FLOT1 antigen affinity purified polyclonal antibody (PA2033) at a dilution of 0.5 ug/mL and probed with a mouse anti-rabbit IgG-HRP secondary antibody (Light Chain). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1196-200). A specific band was detected for FLOT1 at approximately 47 kDa. The expected band size for FLOT1 is at 47 kDa.

1 Publications Citing This Product

1. PubMed ID: 28522298, Shi, X., Li, W., Liu, H., Yin, D., & Zhao, J. (2017). beta-cyclodextrin induces the differentiation of resident cardiac stem cells to cardiomyocytes through autophagy. Biochimica et Biophysica Acta (BBA) - Molecular Cell Research, 1864(8), 1425-1434....

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