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antibody and ELISA experts

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Anti-MIRO1/RHOT1 Antibody Picoband™

Catalog Number: A05928-1

About RHOT1

Mitochondrial Rho GTPase 1 (MIRO1) is an enzyme that in humans is encoded by the RHOT1 gene on chromosome 17. The Ras homolog family member T1 (RHOT) is an atypical Rho Ca2+-binding GTPase that localizes to the mitochondria. RHOT1, the related protein RHOT2, the adaptor protein Milton, and the PTEN induced putative kinase 1 (PINK1), form a complex that is involved in axonal transport of mitochondria. Both PINK1 and Parkin target RHOT1 for phosphorylation and degradation, causing the arrest of mitochondrial motility.

Overview

Product Name	Anti-MIRO1/RHOT1 Antibody Picoband™
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-MIRO1/RHOT1 Antibody Picoband™ catalog # A05928-1. Tested in ELISA, IF, IHC, ICC, WB applications. This antibody reacts with Human, Mouse, Rat.
Application	ELISA, IF, IHC, 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	Q8IXI2

Technical Details

Immunogen	E.coli-derived human MIRO1/RHOT1 recombinant protein (Position: Q63-A596).
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) 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	Dilute the sample so that the expected range of concentrations fall within the detection range of this

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	kit. If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples. Some PubMed article(s) citing the expression level of this target are as follows: Boster Bio's internal QC testing used: Western blot, 0.1-0.25 ug/ml, Human, Mouse, Rat Immunohistochemistry(Paraffin-embedded Section), 2-5 ug/ml, Human Immunocytochemistry/Immunofluorescence, 5 ug/ml, Human Direct ELISA, 0.1-0.5 ug/ml, Human

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Anti-MIRO1/RHOT1 Antibody Picoband™ (A05928-1) Images

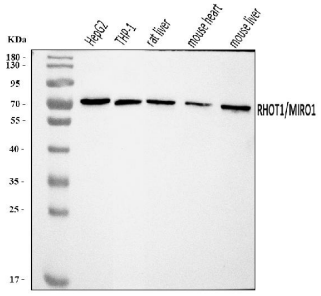

Figure 1. Western blot analysis of MIRO1/RHOT1 using anti-MIRO1/RHOT1 antibody (A05928-1).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.
Lane 1: human HepG2 whole cell lysates,
Lane 2: human THP-1 whole cell lysates,
Lane 3: rat liver tissue lysates,
Lane 4: mouse heart tissue lysates,
Lane 5: mouse liver 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-MIRO1/RHOT1 antigen affinity purified polyclonal antibody (Catalog # A05928-1) at 0.25 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 MIRO1/RHOT1 at approximately 71 kDa. The expected band size for MIRO1/RHOT1 is at 71 kDa.

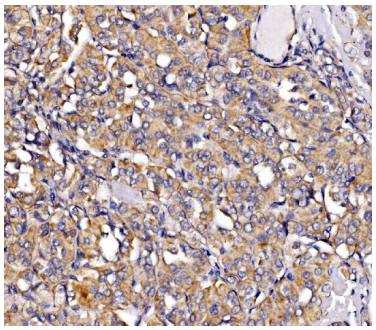

Figure 2. IHC analysis of MIRO1/RHOT1 using anti-MIRO1/RHOT1 antibody (A05928-1).
MIRO1/RHOT1 was detected in a paraffin-embedded section of human thyroid papillary carcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-MIRO1/RHOT1 Antibody (A05928-1) 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 Strepavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

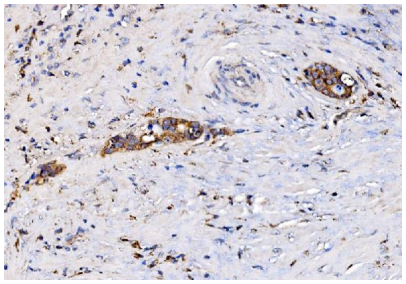

Figure 3. IHC analysis of MIRO1/RHOT1 using anti-MIRO1/RHOT1 antibody (A05928-1).
MIRO1/RHOT1 was detected in a paraffin-embedded section of human gall bladder adenosquamous carcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-MIRO1/RHOT1 Antibody (A05928-1) 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 Strepavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

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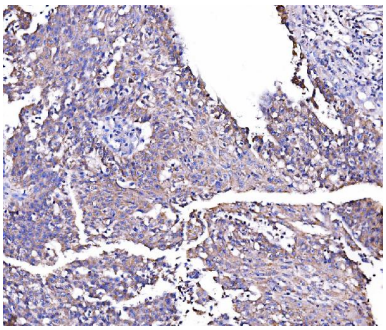

Figure 4. IHC analysis of MIRO1/RHOT1 using anti-MIRO1/RHOT1 antibody (A05928-1).
MIRO1/RHOT1 was detected in a paraffin-embedded section of human laryngeal squamous cell carcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-MIRO1/RHOT1 Antibody (A05928-1) 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 Strepavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

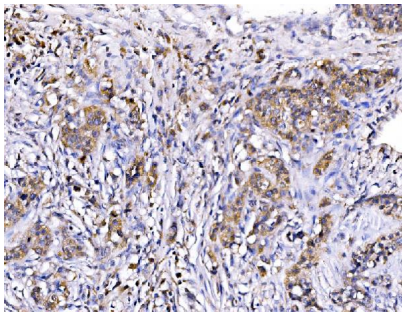

Figure 5. IHC analysis of MIRO1/RHOT1 using anti-MIRO1/RHOT1 antibody (A05928-1).
MIRO1/RHOT1 was detected in a paraffin-embedded section of human lung cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-MIRO1/RHOT1 Antibody (A05928-1) 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 Strepavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

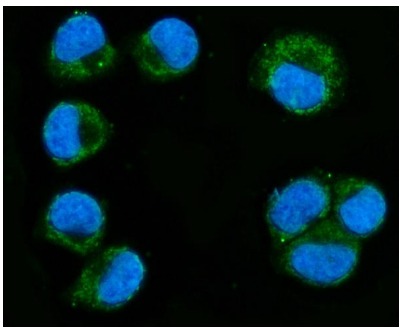

Figure 6. IF analysis of MIRO1/RHOT1 using anti-MIRO1/RHOT1 antibody (A05928-1).
MIRO1/RHOT1 was detected in an immunocytochemical section of T47D cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5 ug/mL rabbit anti-MIRO1/RHOT1 Antibody (A05928-1) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) was used as secondary antibody at 1:100 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.