BOSTER
antibody and ELISA experts

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Anti-CRM1 XPO1 Antibody Picoband™ (monoclonal, 5G3)

Catalog Number: M01180

About XPO1

Exportin 1 (XPO1), also known as chromosomal maintenance 1 (CRM1), is an eukaryotic protein that mapped to human chromosome 2p16 by fluorescence in situ hybridization. This protein mediates leucine-rich nuclear export signal (NES)-dependent protein transport. It specifically inhibits the nuclear export of Rev and U snRNAs. Additionally, this protein is involved in the control of several cellular processes by controlling the localization of cyclin B, MPAK, and MAPKAP kinase 2. It also regulates NFAT and AP-1.

Overview

Product Name	Anti-CRM1 XPO1 Antibody Picoband™ (monoclonal, 5G3)
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-CRM1 XPO1 Antibody Picoband™ (monoclonal, 5G3) catalog # M01180. Tested in Flow Cytometry, IF, IHC, ICC, WB applications. This antibody reacts with Human, Mouse, Rat.
Application	Flow Cytometry, IF, IHC, ICC, WB
Clonality	Monoclonal 5G3
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
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	Mouse
Uniprot ID	O14980

Technical Details

Immunogen	E.coli-derived human CRM1 recombinant protein (Position: N966-D1071). Human CRM1 shares 93.4% and 91.5% amino acid (aa) sequence identity with mouse and rat CRM1, respectively.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Mouse IgG (EK1001) for Western blot, and HRP Conjugated anti- Mouse IgG Super Vision Assay Kit (SV0001-1) for IHC(P) and ICC.
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Mouse IgG2b
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.

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Suggested Dilutions	Dilute the sample so that the expected range of concentrations fall within the detection range of this 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, 0.1-0.5ug/ml Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml Immunocytochemistry/Immunofluorescence, 5 ug/ml Flow Cytometry, 1-3ug/1x10^6 cells

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Anti-CRM1 XPO1 Antibody Picoband™ (monoclonal, 5G3) (M01180) Images

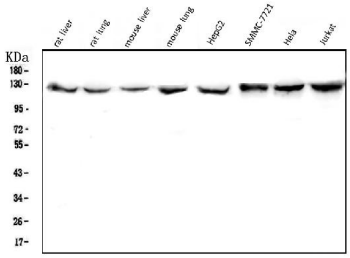

Figure 1. Western blot analysis of CRM1 using anti-CRM1 antibody (M01180).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.
Lane 1: rat liver tissue lysates,
Lane 2: rat lung tissue lysates,
Lane 3: mouse liver tissue lysates,
Lane 4: mouse lung tissue lysates,
Lane 5: human HepG2 whole cell lysates,
Lane 6: human SMMC-7721 whole cell lysates,
Lane 7: human Hela whole cell lysates,
Lane 8: human Jurkat 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 mouse anti-CRM1 antigen affinity purified monoclonal antibody (Catalog # M01180) 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-mouse IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1001) with Tanon 5200 system. A specific band was detected for CRM1 at approximately 123 kDa. The expected band size for CRM1 is at 123 kDa.

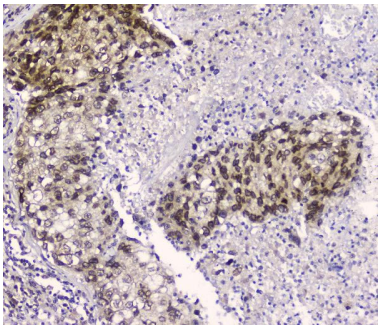

Figure 2. IHC analysis of CRM1 using anti-CRM1 antibody (M01180).
CRM1 was detected in paraffin-embedded section of human lung cancer tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml mouse anti-CRM1 Antibody (M01180) overnight at 4°C. Biotinylated goat anti-mouse 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 # SA1021) with DAB as the chromogen.

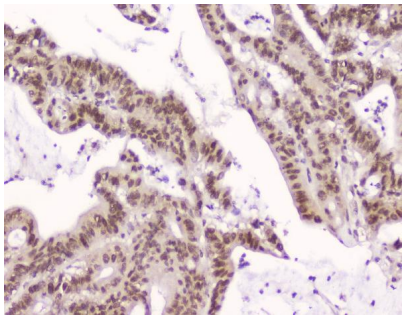

Figure 3. IHC analysis of CRM1 using anti-CRM1 antibody (M01180).
CRM1 was detected in paraffin-embedded section of human intestinal cancer tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml mouse anti-CRM1 Antibody (M01180) overnight at 4°C. Biotinylated goat anti-mouse 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 # SA1021) with DAB as the chromogen.

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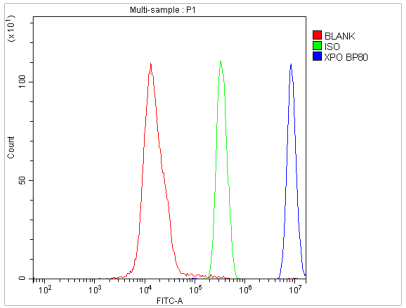

Figure 4. Flow Cytometry analysis of SiHa cells using anti-CRM1 antibody (M01180).
Overlay histogram showing SiHa cells stained with M01180 (Blue line).The cells were blocked with 10% normal goat serum. And then incubated with mouse anti-CRM1 Antibody (M01180,1ug/1x10^6 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-mouse IgG (BA1126, 5-10ug/1x10^6 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x10^6) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

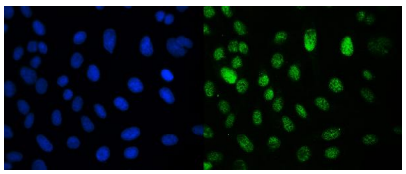

Figure 5. IF analysis of CRM1 using anti-CRM1 antibody (M01180).
CRM1 was detected in immunocytochemical section of U20S cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 2ug/mL mouse anti- CRM1 Antibody (M01180) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Mouse IgG (BA1126) 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.