BOSTER BIOLOGICAL TECHNOLOGY
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Anti-PARK7/DJ1 Antibody Picoband® (monoclonal, 4B10)

Catalog Number: M00757-4

About PARK7

Parkinson disease (autosomal recessive, early onset) 7, also known as DJ1, is a protein which in humans is encoded by the PARK7 gene. PARK7 belongs to the peptidase C56 family of proteins. PARK7 is mapped to chromosome 1p36. It acts as a positive regulator of androgen receptor-dependent transcription. It is also involved in tumorigenesis and in maintaining mitochondrial homeostasis. This gene may also function as a redox-sensitive chaperone, as a sensor foroxidative stress, and it apparently protects neurons against oxidative stress and cell death. It has been found that PARK7 mutations that impair transcriptional coactivator function can render dopaminergic neurons vulnerable to apoptosis and may contribute to the pathogenesis of Parkinson disease.

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Overview

Product Name	Anti-PARK7/DJ1 Antibody Picoband® (monoclonal, 4B10)
Reactive Species	Human
Description	Boster Bio Anti-PARK7/DJ1 Antibody Picoband® (monoclonal, 4B10) catalog # M00757-4. Tested in Flow Cytometry, IF, IHC, ICC, WB applications. This antibody reacts with Human. 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	Flow Cytometry, IF, IHC, ICC, WB
Clonality	Monoclonal 4B10
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 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	Mouse
Uniprot ID	Q99497

Technical Details

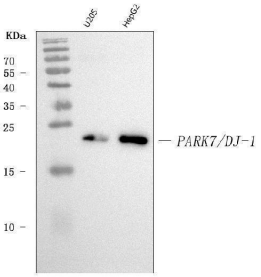
Immunogen	E.coli-derived human PARK7 recombinant protein (Position: A2-D189). Human PARK7 shares 91% amino acid (aa) sequence identity with both mouse and rat PARK7.

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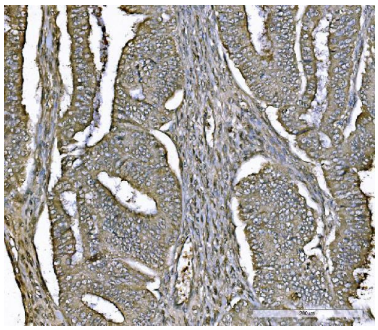
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Mouse IgG (EK1001) for Western blot, and HRP Conjugated anti-Mouse IgG Super Vision Assay Kit (SV0001-1) for IHC(P) and ICC.
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	IgG2b
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 μg/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.25-0.5 μg/ml, Human Immunohistochemistry(Paraffin-embedded Section), 2-5 μg/ml, Human Immunocytochemistry/Immunofluorescence, 5 μg/ml, Human Flow Cytometry (Fixed), 1-3 μg/1x10^6 cells, Human Note: For flow cytometry (FCM), suitable for fixed cells only. Not suitable for FACS or surface flow cytometry using live cells.

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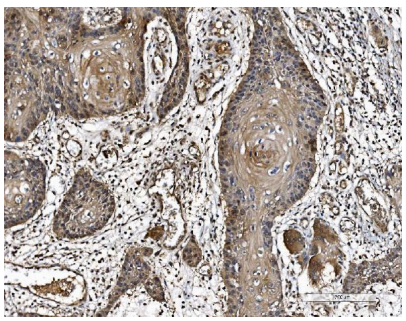
Anti-PARK7/DJ1 Antibody Picoband® (monoclonal, 4B10) (M00757-4) Images



Western blot analysis of PARK7/DJ1 using anti-PARK7/DJ1 antibody (M00757-4). 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 U20S whole cell lysates, Lane 2: human HepG2 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-PARK7/DJ1 antigen affinity purified monoclonal antibody (Catalog # M00757-4) 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 PARK7/DJ1 at approximately 22 kDa. The expected band size for PARK7/DJ1 is at 22 kDa.



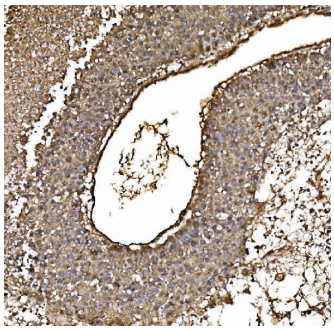
IHC analysis of PARK7/DJ1 using anti-PARK7/DJ1 antibody (M00757-4). PARK7/DJ1 was detected in a paraffin-embedded section of human endometrial carcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml mouse anti-PARK7/DJ1 Antibody (M00757-4) overnight at 4°C. Peroxidase Conjugated Goat Anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Mouse IgG Super Vision Assay Kit (Catalog # SV0001) with DAB as the chromogen.



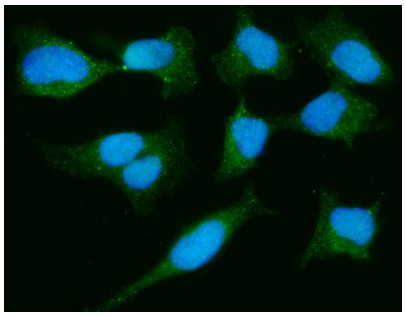
IHC analysis of PARK7/DJ1 using anti-PARK7/DJ1 antibody (M00757-4). PARK7/DJ1 was detected in a paraffin-embedded section of human esophageal squamous carcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml mouse anti-PARK7/DJ1 Antibody (M00757-4) overnight at 4°C. Peroxidase Conjugated Goat Anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Mouse IgG Super Vision Assay Kit (Catalog # SV0001) with DAB as the chromogen.

IHC analysis of PARK7/DJ1 using anti-PARK7/DJ1 antibody (M00757-4). PARK7/DJ1 was detected in a paraffin-embedded section of human liver cancer tissue. Heat

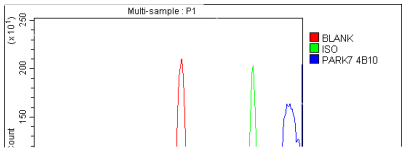
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mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml mouse anti-PARK7/DJ1 Antibody (M00757-4) overnight at 4°C. Peroxidase Conjugated Goat Anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Mouse IgG Super Vision Assay Kit (Catalog # SV0001) with DAB as the chromogen.



IF analysis of PARK7/DJ1 using anti-PARK7/DJ1 antibody (M00757-4). PARK7/DJ1 was detected in an immunocytochemical section of Hela 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 mouse anti-PARK7/DJ1 Antibody (M00757-4) 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.



Flow Cytometry analysis of Hela cells using anti-PARK7/DJ1 antibody (M00757-4). Overlay histogram showing Hela cells stained with M00757-4 (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 mouse anti-PARK7/DJ1 Antibody (M00757-4, 1 ug/1x106 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-mouse IgG (BA1126, 5-10 ug/1x106 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was mouse 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-PARK7/DJ1 Antibody (monoclonal, 4B10)

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