

Product Datasheet

ATPB Antibody (4.3E8.D10)

NB600-1171

Unit Size: 100ug

Store at -20C. Avoid freeze-thaw cycles.

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NB600-1171

ATPB Antibody (4.3E8.D10)

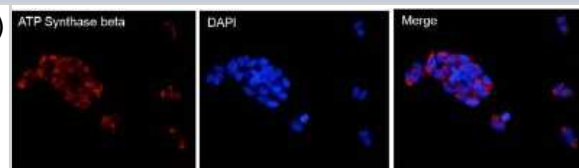
Product Information	
Unit Size	100ug
Concentration	1 mg/ml
Storage	Store at -20C. Avoid freeze-thaw cycles.
Clonality	Monoclonal
Clone	4.3E8.D10
Preservative	0.05% Sodium Azide
Isotype	IgG1
Purity	Immunogen affinity purified
Buffer	PBS with 1 mg/ml BSA

Product Description	
Host	Mouse
Gene ID	506
Gene Symbol	ATP5F1B
Species	Human, Mouse, Rat
Reactivity Notes	Please note that this antibody is reactive to Mouse and derived from the same host, Mouse. Additional Mouse on Mouse blocking steps may be required for IHC and ICC experiments. Please contact Technical Support for more information.
Marker	Mitochondria Marker
Specificity/Sensitivity	Detects the beta subunit of ATP synthase from mouse rat and human samples. This is useful as a mitochondrial marker.
Immunogen	Intact rat mitochondria.

Product Application Details	
Applications	Western Blot, Immunocytochemistry/ Immunofluorescence, In vitro assay, Immunoprecipitation
Recommended Dilutions	Western Blot 1 - 2 ug/ml, Immunocytochemistry/ Immunofluorescence 1:100 - 1:1000, Immunoprecipitation 2 - 5 ug, In vitro assay
Application Notes	In Vivo assay usage was reported in scientific literatures. In IP: Detects an 50 kDa protein representing ATP synthase from solubilized rat brain mitochondria.

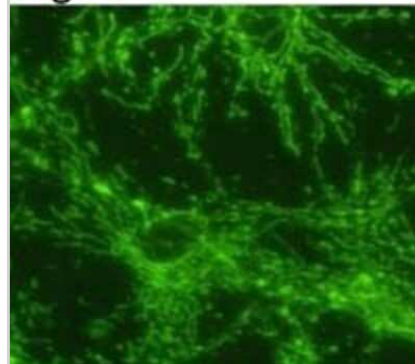
Images

Immunocytochemistry/Immunofluorescence: ATPB Antibody (4.3E8.D10) [NB600-1171] - Analysis of ATP Synthase beta (red) in HEK293T cells. Cells fixed with 4% formaldehyde were permeabilized and blocked with 1X PBS containing 5% BSA and 0.3% Triton X-100 for 1 hour at room temperature. Cells were probed with an ATP Synthase beta monoclonal antibody at a dilution of 1:100 overnight at 4C in 1X PBS containing 1% BSA and 0.3% Triton X-100, washed with 1X PBS, and incubated with a fluorophore-conjugated goat anti-mouse IgG secondary antibody at a dilution of 1:200 for 1 hour at room temperature. Nuclei (blue) were stained with DAPI.

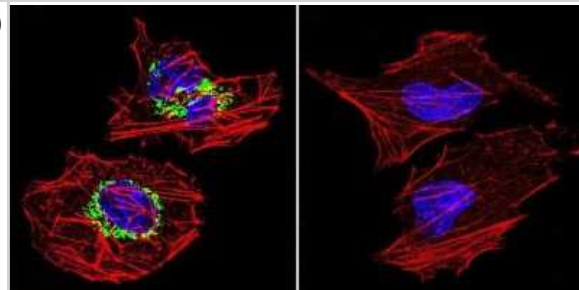


Immunocytochemistry/Immunofluorescence: ATPB Antibody (4.3E8.D10) [NB600-1171] - Indirect staining of rat neuronal/glia cell culture.

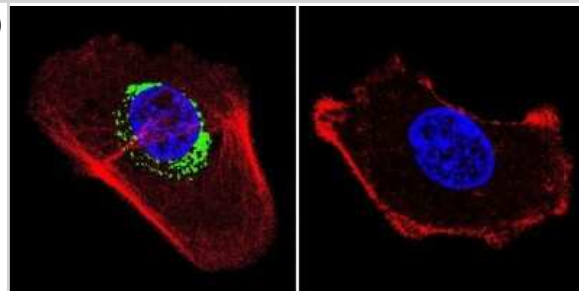
Fig. 1



Immunocytochemistry/Immunofluorescence: ATPB Antibody (4.3E8.D10) [NB600-1171] - Analysis of ATP Synthase beta in HeLa cells. Cells were grown on chamber slides and fixed with formaldehyde prior to staining. Cells were probed without (control) or with a ATP Synthase beta monoclonal antibody at a dilution of 1:200 overnight at 4C, washed with PBS and incubated with a DyLight-488 conjugated secondary antibody. ATP Synthase beta staining (green), F-Actin staining with Phalloidin (red) and nuclei with DAPI (blue) is shown.



Immunocytochemistry/Immunofluorescence: ATPB Antibody (4.3E8.D10) [NB600-1171] - Analysis of ATP Synthase beta in A431 cells. Cells were grown on chamber slides and fixed with formaldehyde prior to staining. Cells were probed without (control) or with a ATP Synthase beta monoclonal antibody at a dilution of 1:200 overnight at 4C, washed with PBS and incubated with a DyLight-488 conjugated secondary antibody. ATP Synthase beta staining (green), F-Actin staining with Phalloidin (red) and nuclei with DAPI (blue) is shown.

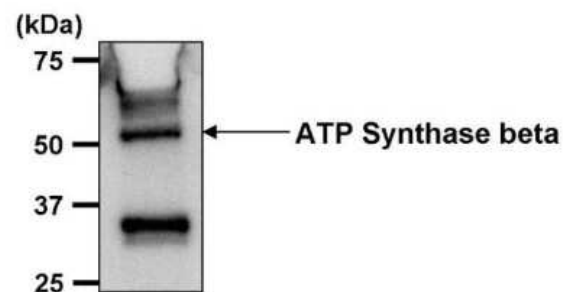


Immunoprecipitation: ATPB Antibody (4.3E8.D10) [NB600-1171] - Analysis of rat neuronal/glia cell extract.

Fig. 2



Immunoprecipitation: ATPB Antibody (4.3E8.D10) [NB600-1171] - Analysis of ATP Synthase beta was performed on THP-1 cells. Antigen-antibody complexes were formed by incubating 500ug of THP-1 whole cell lysate (in 500ul volume) with 5ul of an ATP Synthase beta monoclonal antibody overnight at 4C. The immune complexes were captured on 30ul of protein G agarose, washed extensively, and eluted with 6X Laemmli non-reducing sample buffer. Samples were resolved on an 8% SDS-PAGE gel, transferred to a PVDF membrane, and blocked with 5% milk in TBST for 1 hour at room temperature. The membrane was probed with an ATP Synthase beta monoclonal antibody at a dilution of 1:1000 overnight at 4C, washed in TBST, and probed with an HRP-conjugated goat anti-mouse IgG secondary at a dilution of 1:40,000 for 1 hour at room temperature. Chemiluminescent detection was performed using ECL substrate. Data courtesy of the Innovators Program.



Publications

Halbert D, Domenyuk V, Spetzler D et al. Aptamers and uses thereof United States Patent Application US 9958448 B2 2018-01-01

Huang X, Wu BP, Nguyen D et al. CHCHD2 accumulates in distressed mitochondria and facilitates oligomerization of CHCHD10 Hum. Mol. Genet. 2018-07-31 [PMID: 30084972] (Human)

Kong HK, Wong MH, Chan HM, Lo SC. Chronic Exposure of Adult Rats to Low Doses of Methylmercury Induced a State of Metabolic Deficit in the Somatosensory Cortex. J Proteome Res. 2013-08-28 [PMID: 23984759] (WB, Rat)

Howard AD, Verghese PB, Arrese EL, Soulages JL. The Beta-subunit of ATP synthase is involved in cellular uptake and resecretion of apoA-I but does not control apoA-I-induced lipid efflux in adipocytes Mol Cell Biochem 2011-02-01 [PMID: 21069432] (In vitro, Mouse)



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Products Related to NB600-1171

NBL1-07817	ATPB Overexpression Lysate
HAF007	Goat anti-Mouse IgG Secondary Antibody [HRP]
NB720-B	Rabbit anti-Mouse IgG (H+L) Secondary Antibody [Biotin]
NBP1-97005-0.5mg	Mouse IgG1 Isotype Control (MG1)

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