abcam

Product datasheet

Anti-PABPN1 antibody [EP3000Y] - BSA and Azide free ab232513

Recombinant RabMAb

10 Images

Overview

Product name	Anti-PABPN1 antibody [EP3000Y] - BSA and Azide free
Description	Rabbit monoclonal [EP3000Y] to PABPN1 - BSA and Azide free
Host species	Rabbit
Tested applications	**Suitable for:** Flow Cyt (Intra), WB, IP, IHC-P, ICC/IF
Species reactivity	**Reacts with:** Mouse, Rat, Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	IHC-P: Human bladder carcinoma tissue.
General notes	ab232513 is the carrier-free version of **ab75855**. Our **carrier-free** antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications. Use our **conjugation kits** for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold. This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc. This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Do Not Freeze.
Storage buffer	pH: 7.20 Constituent: PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EP3000Y
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab232513 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

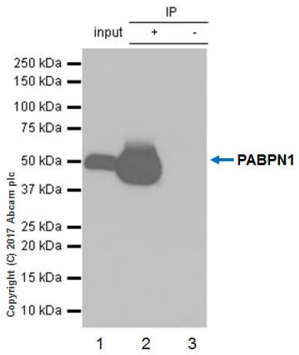
Application	Abreviews	Notes
Flow Cyt (Intra)		Use at an assay dependent concentration. **ab172730** - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
WB		Use at an assay dependent concentration. Predicted molecular weight: 33 kDa.
IP		Use at an assay dependent concentration.
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval before commencing with IHC staining protocol. See **IHC antigen retrieval protocols**.
ICC/IF		Use at an assay dependent concentration.

Target

Function	Involved in the 3'-end formation of mRNA precursors (pre-mRNA) by the addition of a poly(A) tail of 200-250 nt to the upstream cleavage product. Stimulates poly(A) polymerase (PAPOLA) conferring processivity on the poly(A) tail elongation reaction and controls also the poly(A) tail length. Increases the affinity of poly(A) polymerase for RNA. Is also present at various stages of mRNA metabolism including nucleocytoplasmic trafficking and nonsense-mediated decay (NMD) of mRNA. Cooperates with SKIP to synergistically activate E-box-mediated transcription through MYOD1 and may regulate the expression of muscle-specific genes. Binds to poly(A) and to poly(G) with high affinity. May protect the poly(A) tail from degradation.
Tissue specificity	Ubiquitous.
Involvement in disease	Defects in PABPN1 are the cause of oculopharyngeal muscular dystrophy (OPMD) [MIM:164300]. OPMD is a form of late-onset slowly progressive myopathy characterized by eyelid ptosis,

	dysphagia and, sometimes by other cranial and limb-muscle involvement.
Sequence similarities	Contains 1 RRM (RNA recognition motif) domain.
Domain	The RRM domain is essential for specific adenine bases recognition in the poly(A) tail but not sufficient for poly(A) binding.
Post-translational modifications	Arginine dimethylation is asymmetric and involves PRMT1 and PRMT3. It does not influence the RNA binding properties.
Cellular localization	Nucleus. Cytoplasm. Localized in cytoplasmic mRNP granules containing untranslated mRNAs. Shuttles between the nucleus and the cytoplasm but predominantly found in the nucleus. Its nuclear import may involve the nucleocytoplasmic transport receptor transportin and a RAN-GTP-sensitive import mechanism. Is exported to the cytoplasm by a carrier-mediated pathway that is independent of mRNA traffic. Nucleus; nuclear speckle. Colocalizes with SKIP and poly(A) RNA in nuclear speckles.

Images



Immunoprecipitation - Anti-PABPN1 antibody [EP3000Y] - BSA and Azide free (ab232513)

ab75855 (purified) at 1:30 dilution (5ug) immunoprecipitating PABPN1 in MCF7 (Human breast adenocarcinoma epithelial cell) whole cell lysate.

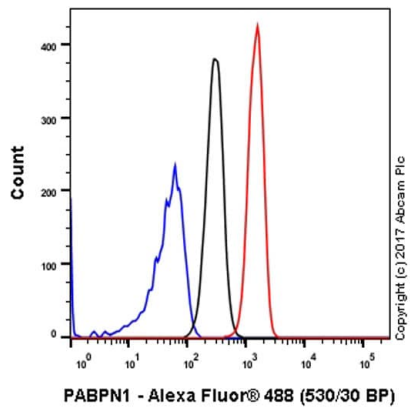
Lane 1 (input): MCF7 (Human breast adenocarcinoma epithelial cell) whole cell lysate 10ug

Lane 2 (+): **ab75855** & MCF7 (Human breast adenocarcinoma epithelial cell) whole cell lysate

Lane 3 (-): Rabbit monoclonal IgG (**ab172730**) instead of **ab75855** in MCF7 (Human breast adenocarcinoma epithelial cell) whole cell lysate

For western blotting, VeriBlot for IP Detection Reagent (HRP) (**ab131366**) was used for detection at 1:10,000 dilution.

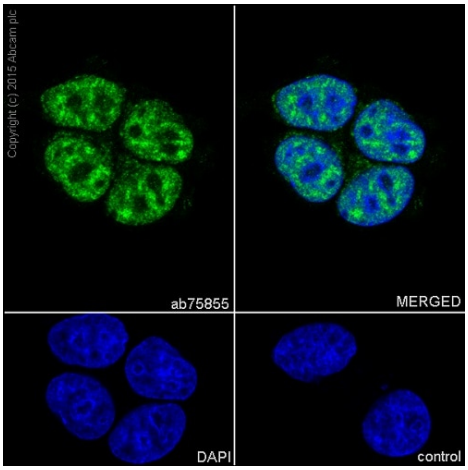
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab75855**).



Flow Cytometry (Intracellular) - Anti-PABPN1 antibody [EP3000Y] - BSA and Azide free (ab232513)

Intracellular Flow Cytometry analysis of MCF7 (Human breast adenocarcinoma epithelial cell) cells labeling PABPN1 with purified **ab75855** at 1/40 dilution (10 ug/ml) (red). Cells were fixed with 80% Methanol and permeabilized with 0.1% Tween-20. A Goat anti rabbit IgG (Alexa Fluor®488) secondary antibody was used at 1/2000 dilution. Isotype control - Rabbit monoclonal IgG (Black). Unlabeled control - Cell without incubation with primary antibody and secondary antibody (Blue).

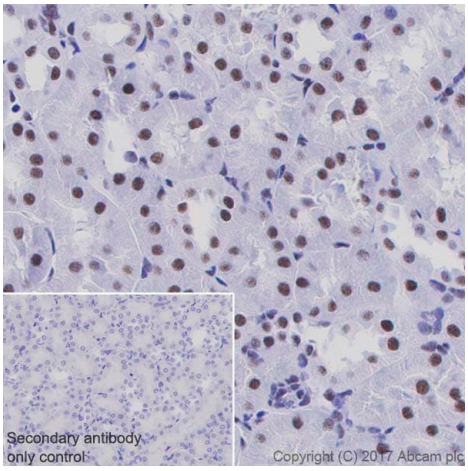
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab75855**).



Immunocytochemistry/ Immunofluorescence - Anti-PABPN1 antibody [EP3000Y] - BSA and Azide free (ab232513)

Immunocytochemistry/ Immunofluorescence analysis of MCF7 (Human breast adenocarcinoma epithelial cell) cells labeling PABPN1 with purified **ab75855** at 1:100 dilution (4.1µg/ml). Cells were fixed in 4% paraformaldehyde and permeabilized with 0.1% tritonX-100. **ab150077** Goat anti rabbit IgG(Alexa Fluor® 488) was used as the secondary antibody at 1:1000 dilution. DAPI nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.

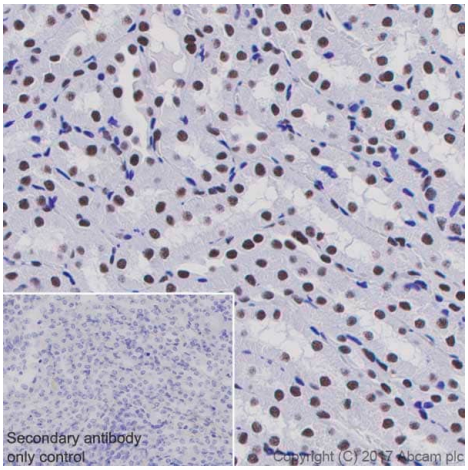
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab75855**).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PABPN1 antibody [EP3000Y] - BSA and Azide free (ab232513)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of rat kidney tissue sections labeling PABPN1 with Purified **ab75855** at 1:1000 dilution (0.41 µg/ml). Heat mediated antigen retrieval was performed using **ab93684** (Tris/EDTA buffer, pH 9.0). Tissue was counterstained with Hematoxylin. ImmunoHistoProbe one step HRP Polymer (ready to use) secondary antibody was used at 1:0 dilution. PBS instead of the primary antibody was used as the negative control.

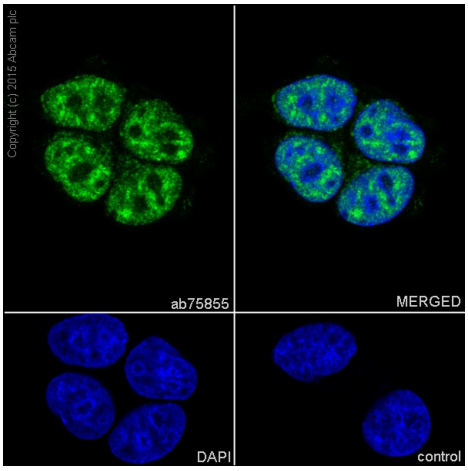
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab75855**).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PABPN1 antibody [EP3000Y] - BSA and Azide free (ab232513)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of mouse kidney tissue sections labeling PABPN1 with Purified **ab75855** at 1:1000 dilution (0.41 µg/ml). Heat mediated antigen retrieval was performed using **ab93684** (Tris/EDTA buffer, pH 9.0). Tissue was counterstained with Hematoxylin. ImmunoHistoProbe one step HRP Polymer (ready to use) secondary antibody was used at 1:0 dilution. PBS instead of the primary antibody was used as the negative control.

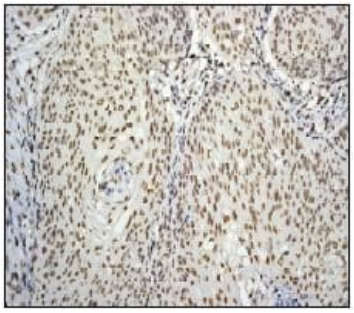
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab75855**).



Immunocytochemistry/ Immunofluorescence - Anti-PABPN1 antibody [EP3000Y] - BSA and Azide free (ab232513)

Immunocytochemistry/Immunofluorescence analysis of MCF-7 cells labelling PABPN1 with unpurified **ab75855** at 1/500. Cells were fixed with 4% paraformaldehyde and permeabilized with 0.1% Triton X-100. **ab150077**, an Alexa Fluor® 488-conjugated goat anti-rabbit IgG (1/1000) was used as the secondary antibody.
Control: PBS only.
Nuclear counter stain: DAPI.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab75855**).

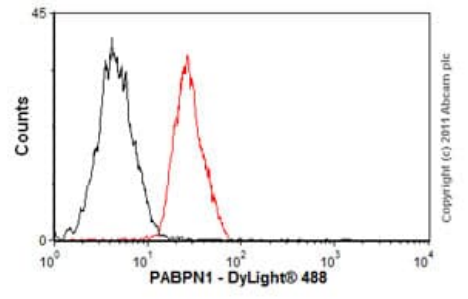


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PABPN1 antibody [EP3000Y] - BSA and Azide free (ab232513)

Unpurified **ab75855**, at 1/100 dilution, staining PABPN1 in squamous cell cervical carcinoma, by Immunohistochemistry using formalin-fixed, paraffin-embedded tissue.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab75855**).

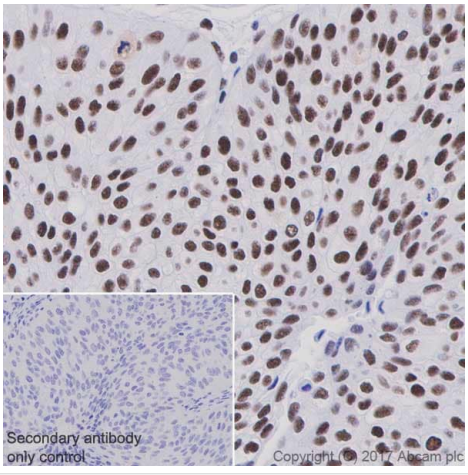
Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Flow Cytometry (Intracellular) - Anti-PABPN1 antibody [EP3000Y] - BSA and Azide free (ab232513)

Overlay histogram showing MCF-7 cells stained with unpurified **ab75855** (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (**ab75855**, 1µg/1x10^6 cells) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-rabbit IgG (H+L) (**ab96899**) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was rabbit IgG (monoclonal) (1µg/1x10^6 cells) used under the same conditions. Acquisition of >5,000 events was performed.

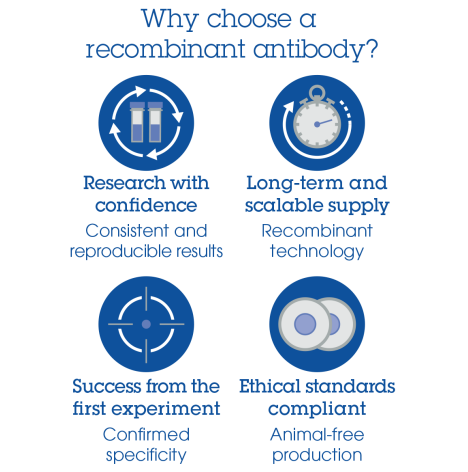
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab75855**).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PABPN1 antibody [EP3000Y] - BSA and Azide free (ab232513)

Immunohistochemical (Formalin/PFA-fixed paraffin-embedded sections) analysis of human bladder carcinoma tissue sections labeling PABPN1 with Purified **ab75855** at 1:1000 dilution (0.41 µg/ml). Heat mediated antigen retrieval was performed using **ab93684** (Tris/EDTA buffer, pH 9.0). Tissue was counterstained with Hematoxylin. ImmunoHistoProbe one step HRP Polymer (ready to use) secondary antibody was used at 1:0 dilution. PBS instead of the primary antibody was used as the negative control.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab75855**).



Anti-PABPN1 antibody [EP3000Y] - BSA and Azide free (ab232513)

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