

Product datasheet

Anti-PABPN1 antibody [EP3000Y] ab75855

Recombinant RabMAb

★★★★★ [2 Abreviews](#) [39 References](#) [14 Images](#)

Overview

Product name	Anti-PABPN1 antibody [EP3000Y]
Description	Rabbit monoclonal [EP3000Y] to PABPN1
Host species	Rabbit
Tested applications	Suitable for: Flow Cyt (Intra), ICC/IF, WB, IP, IHC-P
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Synthetic peptide within Human PABPN1 aa 1-100 (N terminal). The exact sequence is proprietary.
Positive control	WB: Raw264.7, MCF-7, 293T, Mouse spleen, Rat brain and HeLa whole cell lysate (ab150035). ICC/IF: MCF-7 cells. Flow Cyt (intra): MCF-7 cells. IHC-P: Squamous cell cervical carcinoma tissue, human bladder carcinoma, mouse kidney, rat kidney.
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none">- High batch-to-batch consistency and reproducibility- Improved sensitivity and specificity- Long-term security of supply- Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle. Stable for 12 months at -20°C.
Storage buffer	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EP3000Y

Isotype

IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab75855 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)		1/40. ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody. For unpurified use at 1:80.
ICC/IF		1/100 - 1/250.
WB	★★★★★ (1)	1/1000 - 1/10000. Predicted molecular weight: 33 kDa.
IP		1/30. Fur unpurified use at 1:50.
IHC-P		1/1000. Perform heat mediated antigen retrieval before commencing with IHC staining protocol. See IHC antigen retrieval protocols . For unpurified use at 1/100 -1/250.

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

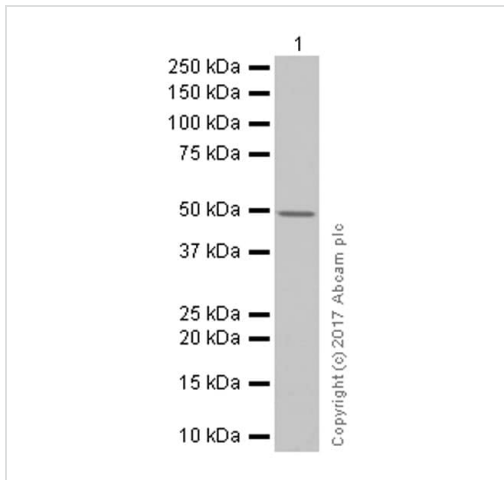
Arginine dimethylation is asymmetric and involves PRMT1 and PRMT3. It does not influence the RNA binding properties.

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



Western blot - Anti-PABPN1 antibody [EP3000Y] (ab75855)

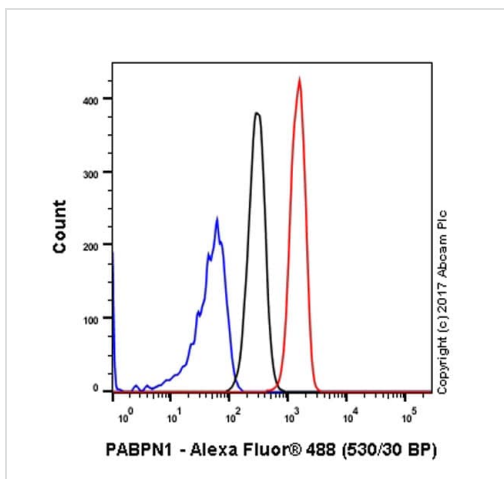
Anti-PABPN1 antibody [EP3000Y] (ab75855) at 1/2000 dilution (purified) + Rat brain lysates at 15 μ g

Secondary

Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/20000 dilution

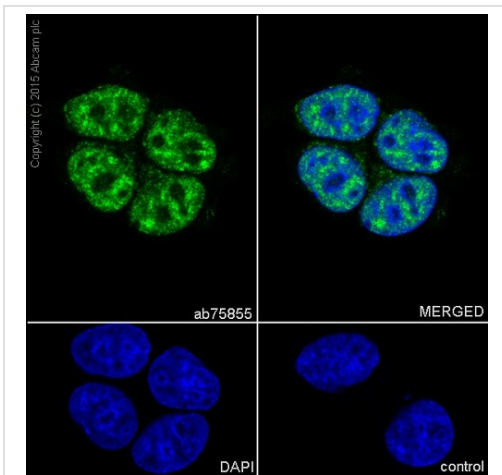
Predicted band size: 33 kDa

Blocking and diluting buffer: 5% NFDm/TBST



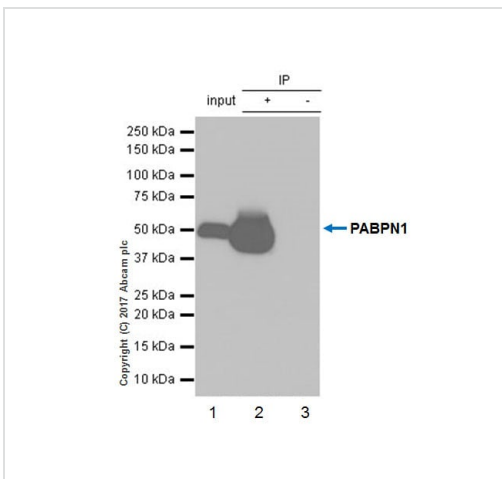
Flow Cytometry (Intracellular) - Anti-PABPN1 antibody [EP3000Y] (ab75855)

Intracellular Flow Cytometry analysis of MCF7 (Human breast adenocarcinoma epithelial cell) cells labeling PABPN1 with purified ab75855 at 1/40 dilution (10 μ g/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).



Immunocytochemistry/ Immunofluorescence - Anti-PABPN1 antibody [EP3000Y] (ab75855)

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.



Immunoprecipitation - Anti-PABPN1 antibody [EP3000Y] (ab75855)

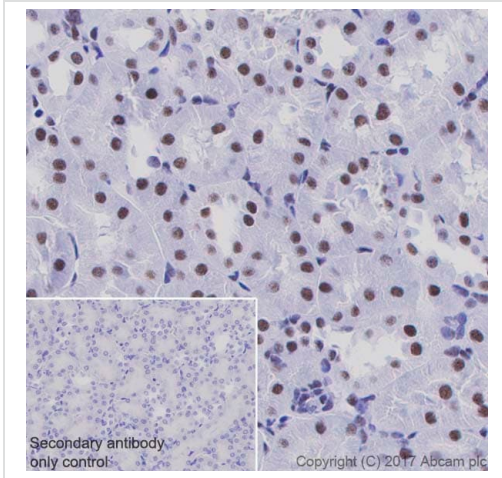
ab75855 (purified) at 1:30 dilution (5ug) immunoprecipitating PABPN1 in MCF7 (Human breast adenocarcinoma epithelial cell) whole cell lysate.

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

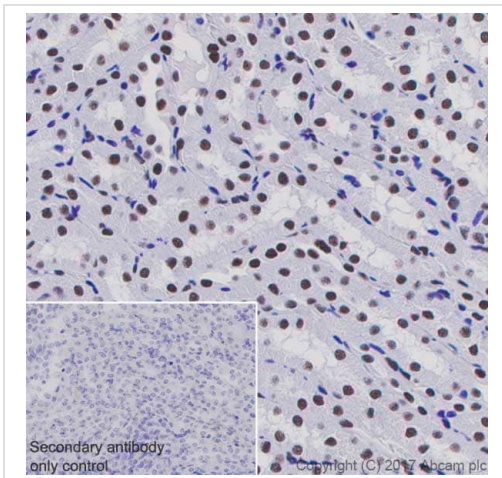
Lane 3 (-): Rabbit monoclonal IgG (**ab172730**) instead of ab75855 in MCF7 (Human breast adenocarcinoma epithelial cell) whole cell lysate

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



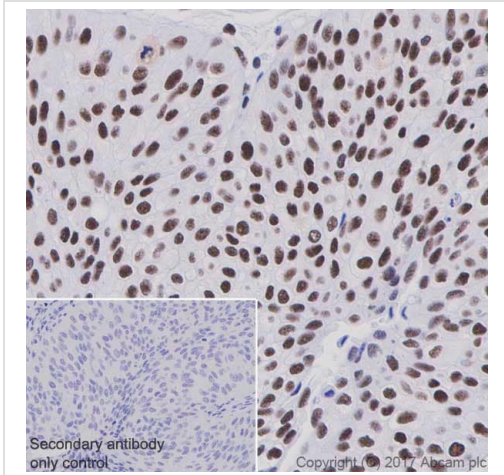
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of rat kidney tissue sections labeling PABPN1 with Purified ab75855 at 1:1000 dilution (0.41 $\mu\text{g/ml}$). Heat mediated antigen retrieval was performed using [ab93684](#) (Tris/EDTA buffer, pH 9.0). Tissue was counterstained 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.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PABPN1 antibody [EP3000Y] (ab75855)



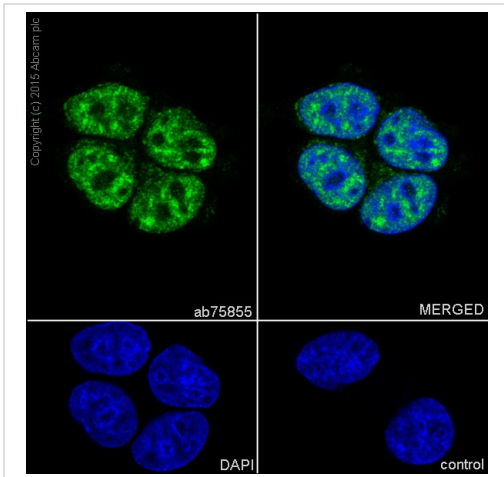
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of mouse kidney tissue sections labeling PABPN1 with Purified ab75855 at 1:1000 dilution (0.41 $\mu\text{g/ml}$). Heat mediated antigen retrieval was performed using [ab93684](#) (Tris/EDTA buffer, pH 9.0). Tissue was counterstained 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.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PABPN1 antibody [EP3000Y] (ab75855)



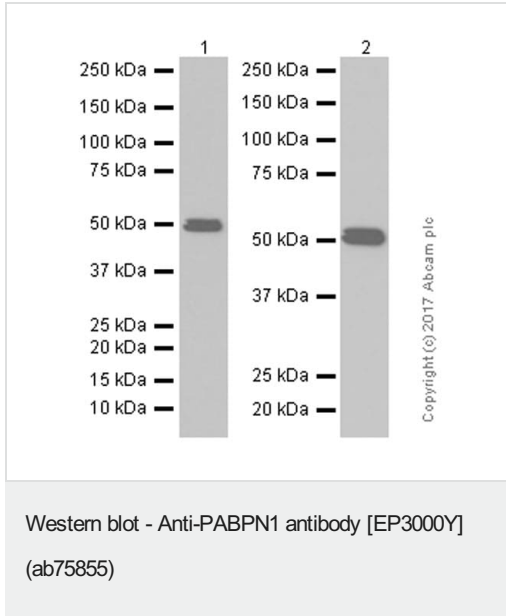
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PABPN1 antibody [EP3000Y] (ab75855)

Immunohistochemistry (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.



Immunocytochemistry/ Immunofluorescence - Anti-PABPN1 antibody [EP3000Y] (ab75855)

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.



All lanes : Anti-PABPN1 antibody [EP3000Y] (ab75855) at 1/2000 dilution (purified)

Lane 1 : RAW 264.7 (Mouse Abelson murine leukemia virus-induced tumor macrophage) whole cell lysates

Lane 2 : Mouse spleen lysates

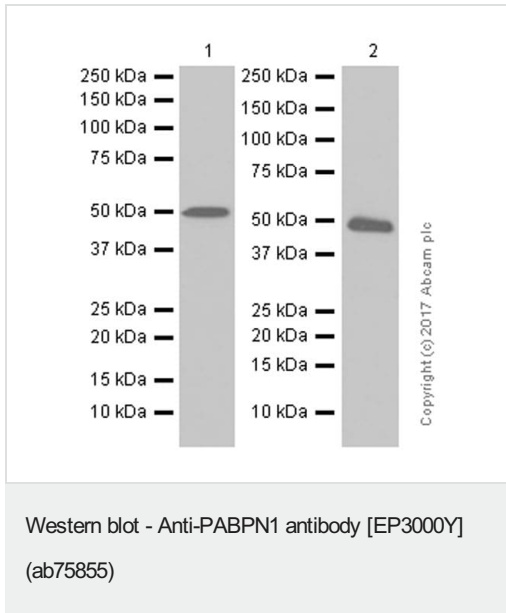
Lysates/proteins at 15 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/100000 dilution

Predicted band size: 33 kDa

Blocking and diluting buffer: 5% NFDm/TBST



All lanes : Anti-PABPN1 antibody [EP3000Y] (ab75855) at 1/2000 dilution (purified)

Lane 1 : 293T (Human embryonic kidney epithelial cell) whole cell lysates

Lane 2 : MCF7 (Human breast adenocarcinoma epithelial cell) whole cell lysates

Lysates/proteins at 15 µg per lane.

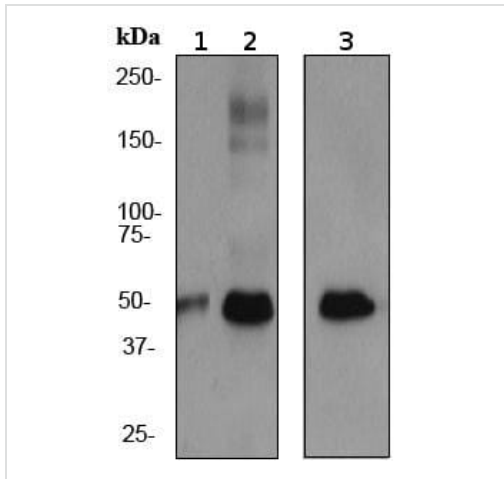
Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/100000 dilution

Predicted band size: 33 kDa

Observed band size: 49 kDa

Blocking and diluting buffer: 5% NFDm/TBST



Western blot - Anti-PABPN1 antibody [EP3000Y] (ab75855)

Lanes 1-2 : Anti-PABPN1 antibody [EP3000Y] (ab75855) at 1/200000 dilution (unpurified)

Lane 3 : Anti-PABPN1 antibody [EP3000Y] (ab75855) at 1/1000000 dilution (unpurified)

Lane 1 : Raw264.7 cell lysate

Lane 2 : MCF-7 cell lysate

Lane 3 : HeLa cell lysate

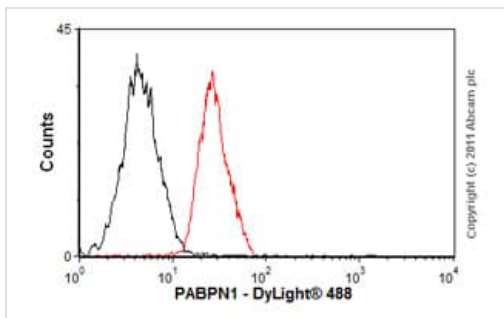
Lysates/proteins at 10 µg per lane.

Secondary

All lanes : HRP-conjugated goat anti-rabbit IgG at 1/1000 dilution

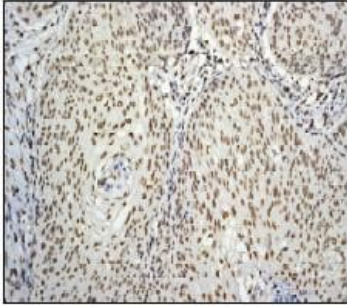
Predicted band size: 33 kDa

Observed band size: 49 kDa



Flow Cytometry (Intracellular) - Anti-PABPN1 antibody [EP3000Y] (ab75855)

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, 1 µg/1x10⁶ 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) (1 µg/1x10⁶ cells) used under the same conditions. Acquisition of >5,000 events was performed.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PABPN1 antibody [EP3000Y] (ab75855)

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

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

Why choose a recombinant antibody?



Anti-PABPN1 antibody [EP3000Y] (ab75855)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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