


Product datasheet

Anti-PIM1 antibody [EP2645Y] ab75776

Recombinant RabMAb

28 References 10 Images

Overview

Product name	Anti-PIM1 antibody [EP2645Y]
Description	Rabbit monoclonal [EP2645Y] to PIM1
Host species	Rabbit
Specificity	Ab75776 does not recognize PIM1L (isoform 1, 44 kDa).
Tested applications	Suitable for: ICC/IF, WB, IHC-P, Flow Cyt Unsuitable for: IP
Species reactivity	Reacts with: Mouse, Human Predicted to work with: Rat 
Immunogen	A synthetic peptide corresponding to residues in human PIM1
Positive control	Human prostatic adenocarcinoma tissue; LnCap, Jurkat and K562 cell lysates.
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>We are constantly working hard to ensure we provide our customers with best in class antibodies. As a result of this work we are pleased to now offer this antibody in purified format. We are in the process of updating our datasheets. The purified format is designated 'PUR' on our product labels. If you have any questions regarding this update, please contact our Scientific Support team.</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. Stable for 12 months at -20°C.
Storage buffer	PBS 49%,Sodium azide 0.01%,Glycerol 50%,BSA 0.05%
Purity	Tissue culture supernatant
Clonality	Monoclonal

Clone number	EP2645Y
Isotype	IgG

Applications

The Abpromise guarantee Our [Abpromise guarantee](#) covers the use of ab75776 in the following tested applications.

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

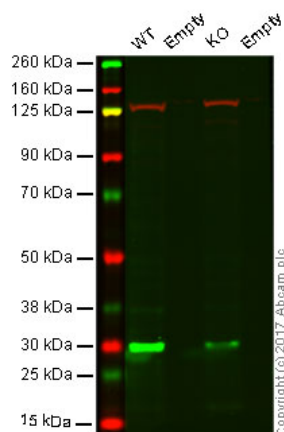
Application	Abreviews	Notes
ICC/IF		Use a concentration of 5 µg/ml.
WB		1/10000 - 1/20000. Detects a band of approximately 45 kDa (predicted molecular weight: 45 kDa). Also detects a band of approximately 36kDa (isoform 2). The 45 kDa band is isoform 1.
IHC-P		1/100 - 1/250. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.
Flow Cyt		1/20. ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Application notes Is unsuitable for IP.

Target

Function	May affect the structure or silencing of chromatin by phosphorylating HP1 gamma/CBX3. Isoform 2 promotes the G1/S transition of the cell cycle via up-regulation of CDK2 activity and phosphorylation of CDKN1B, resulting in enhanced nuclear export and proteasome-dependent degradation of CDKN1B. Isoform 2 also represses CDKN1B transcription by phosphorylating and inactivating the transcription factor FOXO3. Plays a role in signal transduction in blood cells. Contributes to both cell proliferation and survival and thus provides a selective advantage in tumorigenesis.
Tissue specificity	Expressed primarily in cells of the hematopoietic and germline lineages. Isoform 1 and isoform 2 are both expressed in prostate cancer cell lines.
Sequence similarities	Belongs to the protein kinase superfamily. CAMK Ser/Thr protein kinase family. PIM subfamily. Contains 1 protein kinase domain.
Post-translational modifications	Autophosphorylated on both serine/threonine and tyrosine residues.
Cellular localization	Cytoplasm. Nucleus and Cell membrane.

Images



Western blot - Anti-PIM1 antibody [EP2645Y]
(ab75776)

Lane 1: Wild type HAP1 whole cell lysate (40 µg)

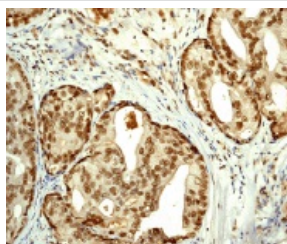
Lane 2: Empty

Lane 3: PIM1 knockout HAP1 whole cell lysate (40 µg)

Lane 4: Empty

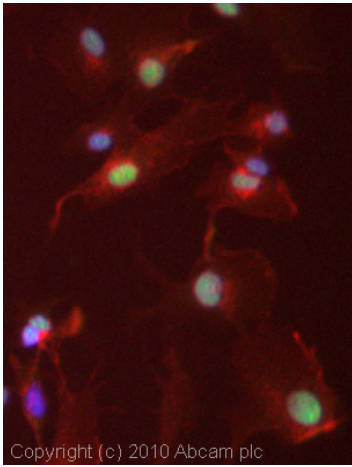
Lanes 1 - 4: Merged signal (red and green). Green - ab75776 observed at 34 kDa. Red - loading control, [ab130007](#), observed at 130 kDa.

ab75776 was found to be non-specific when PIM1 knockout samples were used. Wild-type and PIM1 knockout samples were subjected to SDS-PAGE. ab75776 and [ab130007](#) (Mouse anti-Vinculin loading control) were incubated overnight at 4°C at 1/10000 dilution and 1/20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed [ab216773](#) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed [ab216776](#) secondary antibodies at 1/20000 dilution for 1 hour at room temperature before imaging.



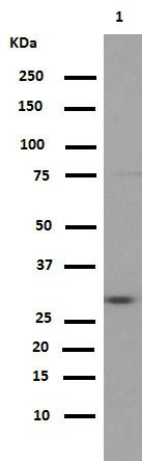
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PIM1 antibody [EP2645Y] (ab75776)

ab75776 at 1/100-1/250 dilution staining PIM1 in human prostatic adenocarcinoma by Immunohistochemistry, Paraffin-embedded tissue.



Immunocytochemistry/ Immunofluorescence - Anti-PIM1 antibody [EP2645Y] (ab75776)

ICC/IF image of ab75776 stained HepG2 cells. The cells were 4% formaldehyde fixed (10 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab75776, 5µg/ml) overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.



Western blot - Anti-PIM1 antibody [EP2645Y] (ab75776)

Anti-PIM1 antibody [EP2645Y] (ab75776) at 1/20000 dilution + Jurkat at 10 µg

Secondary

Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

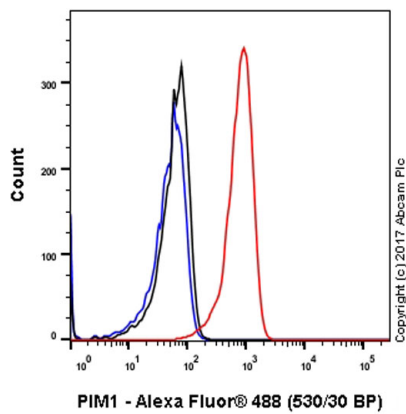
Predicted band size: 45 kDa

Blocking buffer and concentration

5% NFDM/TBST

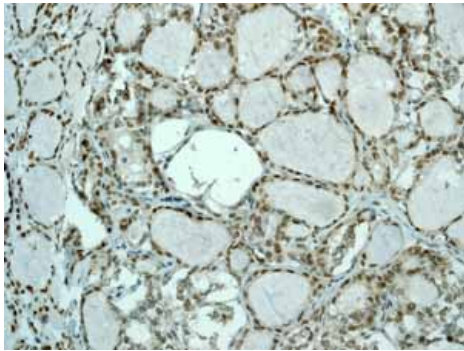
Diluting buffer and concentration

5% NFDM /TBST



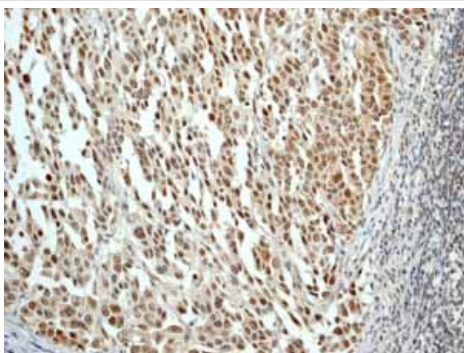
Flow Cytometry - Anti-PIM1 antibody [EP2645Y]
(ab75776)

Flow Cytometry analysis of Jurkat (Human T cell leukemia T lymphocyte) cells labeling PIM1 with purified ab75776 at 1/20 dilution (10ug/mL) (red). Cells were fixed with 4% paraformaldehyde and permeabilised using 90% methanol. A goat anti rabbit IgG (Alexa Fluor®488) ([ab150077](#)) secondary antibody was used at 1/2000 dilution. Isotype control - Rabbit monoclonal IgG ([ab172730](#)) (Black). Unlabeled control - Cell without incubation with primary antibody and secondary antibody



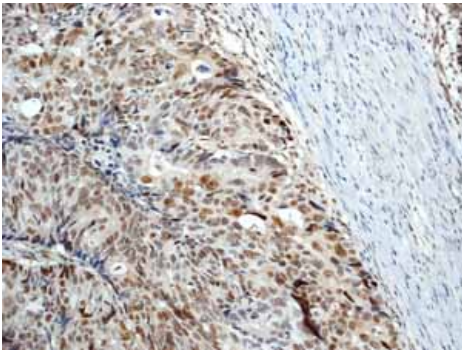
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PIM1 antibody
[EP2645Y] (ab75776)

ab75776 showing positive staining in Thyroid gland carcinoma tissue.



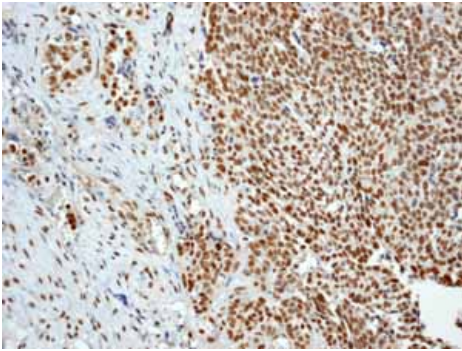
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PIM1 antibody
[EP2645Y] (ab75776)

ab75776 showing positive staining in Stomach adenocarcinoma tissue.



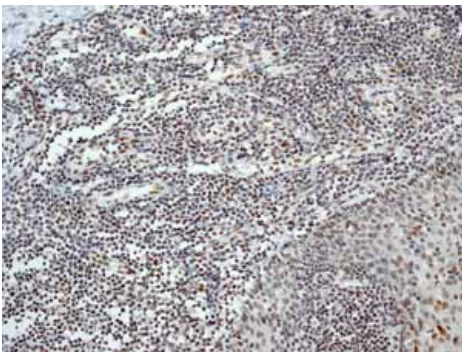
ab75776 showing positive staining in Colonic adenocarcinoma tissue.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PIM1 antibody
[EP2645Y] (ab75776)



ab75776 showing positive staining in Breast carcinoma tissue.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PIM1 antibody
[EP2645Y] (ab75776)



ab75776 showing positive staining in Normal tonsil tissue.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PIM1 antibody
[EP2645Y] (ab75776)

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