abcam

Product datasheet

Anti-Stathmin 1 antibody [EP1573Y] - BSA and Azide free ab221017

Recombinant RabMAb

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Overview

Product name	Anti-Stathmin 1 antibody [EP1573Y] - BSA and Azide free
Description	Rabbit monoclonal [EP1573Y] to Stathmin 1 - BSA and Azide free
Host species	Rabbit
Tested applications	**Suitable for:** Flow Cyt (Intra), WB, IHC-P, ICC/IF, IP
Species reactivity	**Reacts with:** Mouse, Rat, Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	IP: human colon and HeLa cells. IHC-P: lymph node, Human lung carcinoma, Mouse brain, and Rat brain tissue. Flow Cyt (intra): Jurkat cells ICC/IF: HeLa cells
General notes	ab221017 is the carrier-free version of **ab52630**. 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	EP1573Y
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab221017 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. **ab199376** - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
WB		Use at an assay dependent concentration. Detects a band of approximately 19 kDa.
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
ICC/IF		Use at an assay dependent concentration.
IP		Use at an assay dependent concentration.

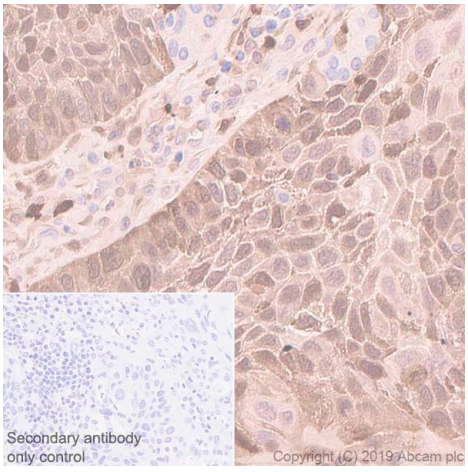
Target

Function Involved in the regulation of the microtubule (MT) filament system by destabilizing microtubules. Prevents assembly and promotes disassembly of microtubules. Phosphorylation at Ser-16 may be required for axon formation during neurogenesis. Involved in the control of the learned and innate fear.

Tissue specificity Ubiquitous. Expression is strongest in fetal and adult brain, spinal cord, and cerebellum, followed by thymus, bone marrow, testis, and fetal liver. Expression is intermediate in colon, ovary, placenta, uterus, and trachea, and is readily detected at substantially lower levels in all other tissues examined. Lowest expression is found in adult liver. Present in much greater abundance in cells from patients with acute leukemia of different subtypes than in normal peripheral blood lymphocytes, non-leukemic proliferating lymphoid cells, bone marrow cells, or cells from patients

	with chronic lymphoid or myeloid leukemia.
Sequence similarities	Belongs to the stathmin family. Contains 1 SLD (stathmin-like) domain.
Post-translational modifications	Many different phosphorylated forms are observed depending on specific combinations among the sites which can be phosphorylated. MAPK is responsible for the phosphorylation of stathmin in response to NGF. Phosphorylation at Ser-16 seems to be required for neuron polarization (By similarity). Phosphorylation at Ser-63 reduces tubulin binding 10-fold and suppresses the MT polymerization inhibition activity.
Cellular localization	Cytoplasm > cytoskeleton.

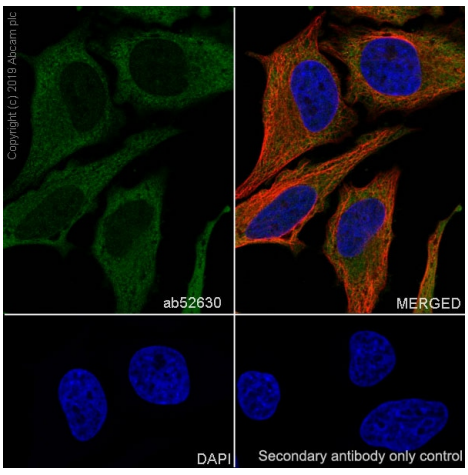
Images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Stathmin 1 antibody [EP1573Y] - BSA and Azide free (ab221017)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human lung carcinoma tissue sections labeling Stathmin 1 with purified **ab52630** at 1/2000 dilution (0.31 µg/ml). Perform heat mediated antigen retrieval using **ab93684** (Tris/EDTA buffer, pH 9.0). ImmunoHistoProbe one step HRP Polymer (ready to use) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.

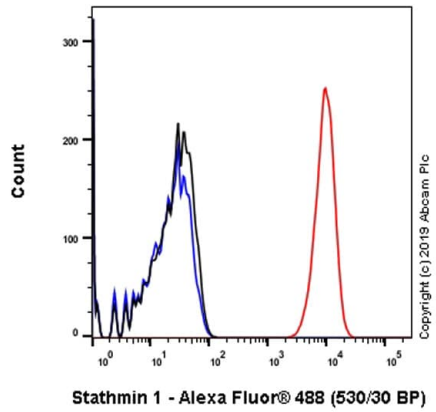
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab52630**).



Immunocytochemistry/ Immunofluorescence - Anti-Stathmin 1 antibody [EP1573Y] - BSA and Azide free (ab221017)

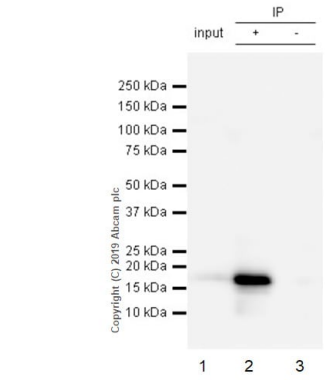
Immunocytochemistry/ Immunofluorescence analysis of HeLa (Human cervix adenocarcinoma epithelial cell) cells labeling Stathmin 1 with purified **ab52630** at 1/200 dilution (3.1 µg/ml). Cells were fixed in 4% Paraformaldehyde and permeabilized with 0.1% tritonX-100. Cells were counterstained with **ab195889** Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) at 1/200 (2.5 µg/ml) dilution. Goat anti rabbit IgG (Alexa Fluor® 488, **ab150077**) was used as the secondary antibody at 1/1000 (2 µg/ml) dilution. DAPI (blue) was used as 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 (**ab52630**).



Flow Cytometry (Intracellular) - Anti-Stathmin 1 antibody [EP1573Y] - BSA and Azide free (ab221017)

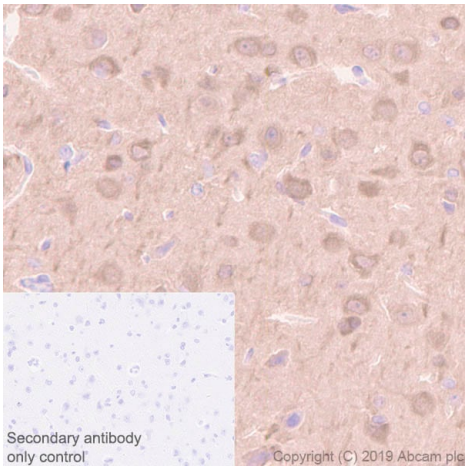
Intracellular Flow Cytometry analysis of Jurkat (Human T cell leukemia T lymphocyte) cells labeling Stathmin 1 with purified **ab52630** at 1/60 dilution (10µg/ml) (red). Cells were fixed with 4% Paraformaldehyde and permeabilised with 90% Methanol. A Goat anti rabbit IgG (Alexa Fluor® 488, **ab150077**) secondary antibody was used at 1/2000. 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 (**ab52630**).



Immunoprecipitation - Anti-Stathmin 1 antibody [EP1573Y] - BSA and Azide free (ab221017)

ab52630 (purified) at 1/30 dilution (2ug) immunoprecipitating Stathmin 1 in HeLa whole cell lysates.
Lane 1: HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysates 10ug
Lane 2 (+): **ab52630** & HeLa whole cell lysates
Lane 3 (-): Rabbit monoclonal IgG (**ab172730**) instead of **ab52630** in HeLa whole cell lysates
For western blotting, VeriBlot for IP Detection Reagent (HRP) (**ab131366**) was used at 1/1000 dilution.
Blocking and diluting buffer: 5% NFDM/TBST.

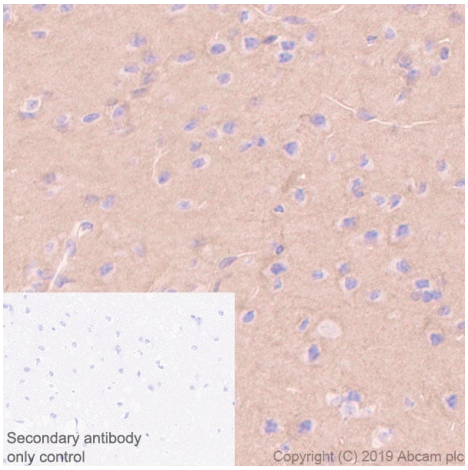
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab52630**).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Stathmin 1 antibody [EP1573Y] - BSA and Azide free (ab221017)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Rat brain tissue sections labeling Stathmin 1 with purified **ab52630** at 1/2000 dilution (0.31 µg/ml). Perform heat mediated antigen retrieval using **ab93684** (Tris/EDTA buffer, pH 9.0). ImmunoHistoProbe one step HRP Polymer (ready to use) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.

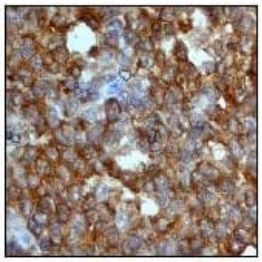
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab52630**).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Stathmin 1 antibody [EP1573Y] - BSA and Azide free (ab221017)

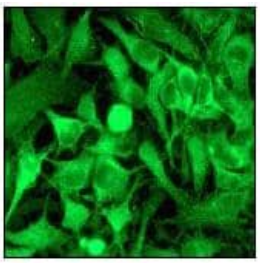
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Mouse brain tissue sections labeling Stathmin 1 with purified **ab52630** at 1/2000 dilution (0.31 µg/ml). Perform heat mediated antigen retrieval using **ab93684** (Tris/EDTA buffer, pH 9.0). ImmunoHistoProbe one step HRP Polymer (ready to use) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab52630**).



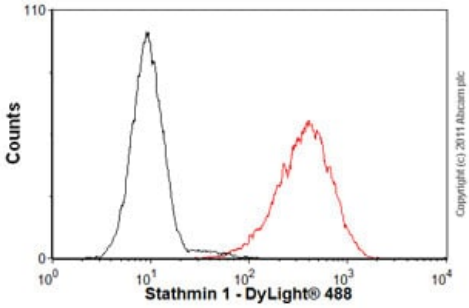
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Stathmin 1 antibody [EP1573Y] - BSA and Azide free (ab221017)

ab52630, at a 1/250 dilution, staining human Stathmin 1 in lymph node tissue, using Immunohistochemistry, Paraffin embedded sections.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab52630**).



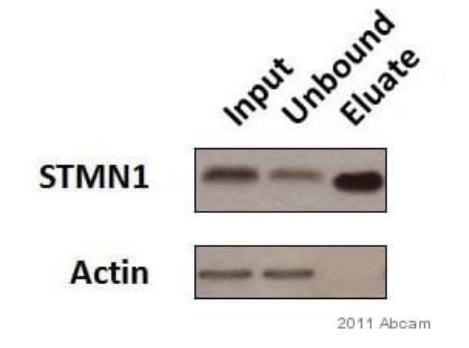
Immunocytochemistry/ Immunofluorescence - Anti-Stathmin 1 antibody [EP1573Y] - BSA and Azide free (ab221017)

ab52630 stained HeLa cells
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab52630**).



Flow Cytometry (Intracellular) - Anti-Stathmin 1 antibody [EP1573Y] - BSA and Azide free (ab221017)

Overlay histogram showing Jurkat cells stained with **ab52630** (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 (**ab52630**, 1/100 dilution) 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 antibody gave a positive signal in Jurkat cells fixed with 4% paraformaldehyde/permeabilized in 0.1% PBS-Tween used under the same conditions. This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab52630**).



Immunoprecipitation - Anti-Stathmin 1 antibody [EP1573Y] - BSA and Azide free (ab221017)

This image is courtesy of an Abreview submitted by Qifeng Lin.

Whole cell lysate prepared from human colon cells was loaded at 20µg. The immunoprecipitation step was performed using Protein A/G. **ab52630** used at a 1/200 dilution for 12 hours at 4°C. For WB **ab52630** used at a 1/10000 dilution.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab52630**).

Anti-Stathmin 1 antibody [EP1573Y] - BSA and Azide free (ab221017)

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