abcam

ab228854

Anti-Vimentin (phospho S56) antibody [EPR21084] - BSA and Azide free

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	EPR21084
Purification technique	Affinity purification Protein A
Concentration	1.079 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Tested

Species	Human
Dilution info	-

Notes	-

Not recommended

Species	Synthetic peptide
Dilution info	-
Notes	-

Dot

Tested

Species	Synthetic peptide
Dilution info	-
Notes	-

Expected

Species	Human
Dilution info	Use at an assay dependent concentration.
Notes	-

WB

Expected

Species	Human
Dilution info	Use at an assay dependent concentration.
Notes	-

Not recommended

Species	Synthetic peptide
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	-
Notes	-

Not recommended

Species	Synthetic peptide
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	-

Not recommended

Species	Synthetic peptide
Dilution info	-
Notes	-

Target data

See full target information VIM pS56

Function	Vimentins are class-III intermediate filaments found in various non-epithelial cells, especially mesenchymal cells. Vimentin is attached to the nucleus, endoplasmic reticulum, and mitochondria, either laterally or terminally. Plays a role in cell directional movement, orientation, cell sheet organization and Golgi complex polarization at the cell migration front (By similarity). Protects SCRIB from proteasomal degradation and facilitates its localization to intermediate filaments in a cell contact-mediated manner (By similarity). May promote axon outgrowth and motor fiber repair via DSP-mediated recruitment to outgrowth tips (By

similarity). Involved with LARP6 in the stabilization of type I collagen mRNAs for CO1A1 and CO1A2.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze

Notes

ab228854 is the carrier-free version of ab217673.

Patented technology

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?

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 batch production

For more information, read more on recombinant antibodies.

Conjugation ready

Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. 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.

Compatibility

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.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

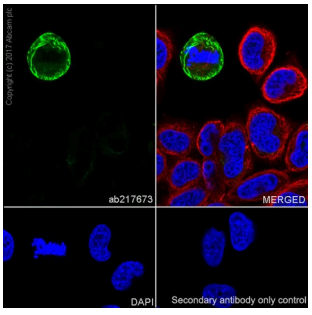
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

5 product images



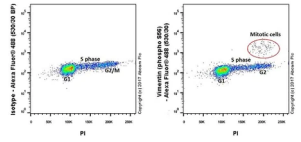
Immunocytochemistry/ Immunofluorescence - Anti-Vimentin (phospho S56) antibody [EPR21084] - BSA and Azide free (ab228854)

Vimentin (phospho S56) Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Vimentin (phospho S56) antibody

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HeLa (human epithelial cell line from cervix adenocarcinoma) cells labeling Vimentin (phospho S56) with ab217673 at 1/1000 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 dilution (green). Confocal image showing strong positive staining in HeLa cells in M phase.
The nuclear counterstain is DAPI (blue). Tubulin is detected with Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) (ab195889) at 1/200 dilution (red).

Secondary antibody only control: PBS instead of primary antibody, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 dilution.

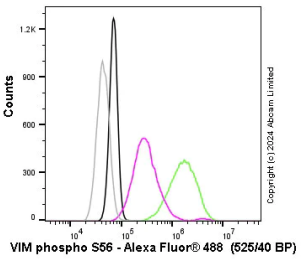
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab217673).



Flow Cytometry (Intracellular) - Anti-Vimentin (phospho S56) antibody [EPR21084] - BSA and Azide free (ab228854)

Vimentin (phospho S56) Flow Cytometry (Intracellular) staining using rabbit Anti-Vimentin (phospho S56) antibody

ab217673 staining Vimentin (phospho S56) in HeLa (human cervix adenocarcinoma epithelial cell) cells by intracellular flow cytometry. Cells were fixed using 80% Methanol and permeabilized with 0.1% Tween-20. The sample was incubated with primary antibody at 1/500 dilution. An Alexa Fluor® 488 Goat anti-rabbit IgG (ab150077) was used as a secondary antibody. Rabbit monoclonal IgG (ab172730) was used as an isotype control (left). Cells were pre-treated with 20 µg/ml RNase A for 30 minutes to eliminate the non-specific binding between RNA and PI (Propidium iodide). Vimentiin (phospho S56) is highly expressed in mitotic cells. (PMID: 16260496)
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab217673).



Flow Cytometry (Intracellular) - Anti-Vimentin (phospho S56) antibody [EPR21084] - BSA and Azide free (ab228854)

Vimentin (phospho S56) Flow Cytometry (Intracellular) staining of Treated HeLa cells using rabbit Anti-Vimentin (phospho S56) antibody

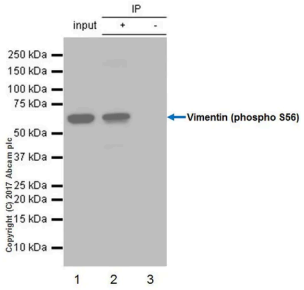
This data was developed using ab217673, the same antibody clone in a different buffer formulation.

Flow cytometry overlay histogram showing HeLa treated with 100ng/mL Nocodazole for 18 hours + RNAse (green line) and untreated HeLa (magenta line) stained with ab217673. The cells were fixed with 80% methanol (5 min) and then permeabilised with 0.1% PBS-Tween 20 for 20 min. The cells were then incubated in 1x PBS containing 10% normal goat serum to block non-specific protein-protein interaction followed by the antibody (ab217673) (1x 10^6in 100µl at 0.04µg/ml (1/56000)) for 30min at 22°C.

The secondary antibody Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed was incubated at 1/4000 for 30min at 22°C

IIsotype control antibody Recombinant Rabbit IgG, monoclonal [EPR25A] - Isotype Control was used at the same concentration and conditions as the primary antibody (treated HeLa - black line, untreated HeLa - grey line). Unlabelled sample was also used as a control (this line is not shown for the purpose of simplicity)

Acquisition of >5000 events were collected using a 50 mW Blue laser (488nm) and 525/40 bandpass filter.



Immunoprecipitation - Anti-Vimentin (phospho S56) antibody [EPR21084] - BSA and Azide free (ab228854)

Vimentin (phospho S56) was immunoprecipitated from 0.35 mg of HeLa (human epithelial cell line from cervix adenocarcinoma) treated with 100 ng/ml nocodazole for 18 hours, whole cell lysate with ab217673 at 1/30 dilution. Western blot was performed from the immunoprecipitate using ab217673 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) (ab131366), was used for detection at 1/10000 dilution.
Lane 1: HeLa treated with 100 ng/ml nocodazole for 18 hours, whole cell lysate 10 µg (Input).
Lane 2: ab217673 IP in HeLa treated with 100 ng/ml nocodazole for 18 hours, whole cell lysate.
Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab217673 in HeLa treated with 100 ng/ml nocodazole for 18 hours, whole cell lysate.

Exposure time: 1 second.

Blocking and dilution buffer and concentration: 5% NFDM/TBST.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab217673).

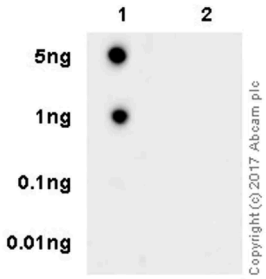
All lanes:
Immunoprecipitation - Anti-Vimentin (phospho S56) antibody [EPR21084] (ab217673)

Developed using the ECL technique.

Predicted band size: 53 kDa

Observed band size: 57 kDa

Exposure time: 1s



Dot Blot - Anti-Vimentin (phospho S56) antibody [EPR21084] - BSA and Azide free (ab228854)

Dot blot analysis of Vimentin (phospho S56) labeled with ab217673 at 1/1000 dilution.
Lane 1: Vimentin (phospho S56) peptide.
Lane 2: Vimentin non-phospho peptide.

Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution was used as secondary antibody.

Blocking and dilution buffer: 5% NFDM/TBST.

Exposure time: 1 minute.

The blot was developed on a BIO-RAD® ChemiDoc™ MP instrument.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab217673).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.