

## Product datasheet

# Anti-Vimentin (phospho S73) antibody [EP1070Y] - BSA and Azide free ab232451

Recombinant RabMAb

[3 Images](#)

### Overview

<b>Product name</b>	Anti-Vimentin (phospho S73) antibody [EP1070Y] - BSA and Azide free
<b>Description</b>	Rabbit monoclonal [EP1070Y] to Vimentin (phospho S73) - BSA and Azide free
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> Dot blot, WB, IP
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Human
<b>Immunogen</b>	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
<b>Positive control</b>	WB: C6 (starved for 24 hours then treated with 100 ng Calyculin A for 60 minutes) whole cell lysate.
<b>General notes</b>	<p>ab232451 is the carrier-free version of <a href="#">ab52944</a>.</p> <p>Our <b>carrier-free</b> 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.</p> <p>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.</p> <p>Use our <b>conjugation kits</b> for antibody conjugates that are ready-to-use in as little as 20 minutes with &lt;1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.</p> <p>This product is compatible with the Maxpar<sup>®</sup> Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar<sup>®</sup> is a trademark of Fluidigm Canada Inc.</p> <p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"><li>- High batch-to-batch consistency and reproducibility</li><li>- Improved sensitivity and specificity</li><li>- Long-term security of supply</li><li>- Animal-free production</li></ul> <p>For more information <a href="#">see here</a>.</p> <p>Our RabMAb<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb<sup>®</sup> patents</a>.</p>

The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.

If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

## Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C. Do Not Freeze.
<b>Storage buffer</b>	pH: 7.2 Constituent: PBS
<b>Carrier free</b>	Yes
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EP1070Y
<b>Isotype</b>	IgG

## Applications

**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab232451 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
Dot blot		Use at an assay dependent concentration.
WB		Use at an assay dependent concentration. Detects a band of approximately 54 kDa (predicted molecular weight: 54 kDa).
IP		Use at an assay dependent concentration. <b>For unpurified use at 1:40.</b>

## Target

<b>Function</b>	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. Involved with LARP6 in the stabilization of type I collagen mRNAs for CO1A1 and CO1A2.
<b>Tissue specificity</b>	Highly expressed in fibroblasts, some expression in T- and B-lymphocytes, and little or no expression in Burkitt's lymphoma cell lines. Expressed in many hormone-independent mammary carcinoma cell lines.
<b>Involvement in disease</b>	Cataract 30

## Sequence similarities

Belongs to the intermediate filament family.

## Domain

The central alpha-helical coiled-coil rod region mediates elementary homodimerization. The [IL]-x-C-x-x-[DE] motif is a proposed target motif for cysteine S-nitrosylation mediated by the iNOS-S100A8/A9 transnitrosylase complex.

## Post-translational modifications

Filament disassembly during mitosis is promoted by phosphorylation at Ser-55 as well as by nestin (By similarity). One of the most prominent phosphoproteins in various cells of mesenchymal origin. Phosphorylation is enhanced during cell division, at which time vimentin filaments are significantly reorganized. Phosphorylation by PKN1 inhibits the formation of filaments. Phosphorylated at Ser-56 by CDK5 during neutrophil secretion in the cytoplasm. Phosphorylated by STK33.

O-glycosylated during cytokinesis at sites identical or close to phosphorylation sites, this interferes with the phosphorylation status.

S-nitrosylation is induced by interferon-gamma and oxidatively-modified low-density lipoprotein (LDL(ox)) possibly implicating the iNOS-S100A8/9 transnitrosylase complex.

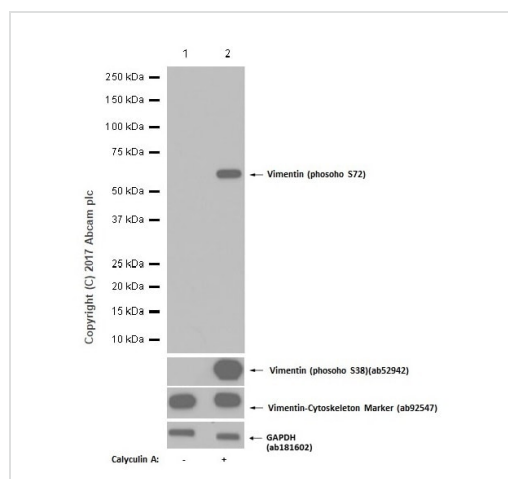
## Cellular localization

Cytoplasm.

## Form

Vimentin is found in connective tissue and in the cytoskeleton.

## Images



Western blot - Anti-Vimentin (phospho S73) antibody [EP1070Y] - BSA and Azide free (ab232451)

**All lanes :** Anti-Vimentin (phospho S73) antibody [EP1070Y] ([ab52944](#)) at 1/10000 dilution (purified)

**Lane 1 :** C6 (Rat glial tumor cell line) whole cell lysate, untreated

**Lane 2 :** C6 (Rat glial tumor glial cell) starved for 24 hours, then treated with 100ng Calyculin A for 60 minutes, whole cell lysate

Lysates/proteins at 15 µg per lane.

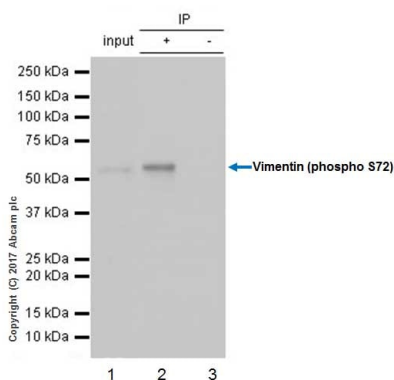
### Secondary

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

**Predicted band size:** 54 kDa

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 ([ab52944](#)).



Immunoprecipitation - Anti-Vimentin (phospho S73) antibody [EP1070Y] - BSA and Azide free (ab232451)

**ab52944** (purified) at 1:20 dilution (2µg) immunoprecipitating Vimentin in HeLa starved 24 hours, then treated with 100nM Calyculin A for 30 minutes whole cell lysate.

Lane 1 (input): HeLa (Human cervix adenocarcinoma epithelial cell) starved 24 hours, then treated with 100nM Calyculin A for 30 minutes whole cell lysate 10µg

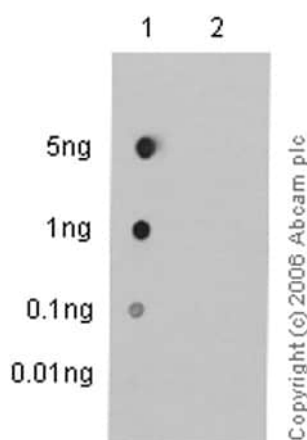
Lane 2 (+): **ab52944** & HeLa starved 24 hours, then treated with 100nM Calyculin A for 30 minutes whole cell lysate

Lane 3 (-): Rabbit monoclonal IgG (**ab172730**) instead of **ab52944** in HeLa starved 24 hours, then treated with 100nM Calyculin A for 30 minutes whole cell lysate

For western blotting, VeriBlot for IP Detection Reagent (HRP) (**ab131366**) was used for detection 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 (**ab52944**).



Dot Blot - Anti-Vimentin (phospho S73) antibody [EP1070Y] - BSA and Azide free (ab232451)

Primary antibody dilution: 1/1000

Secondary antibody: goat anti-rabbit IgG, (H+L), peroxidase conjugated (1/2500 dilution)

Blocking & diluting buffer: 5% NFDm/TBST

Lane 1 sample: Vimentin (pS72) phospho peptide

Lane 2 sample: Vimentin non-phospho peptide

Exposure time: 3 minutes

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab52944**).

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

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