**Product datasheet**

**Anti-Vimentin (phospho S72) antibody [EP1070Y]  
ab52944**

RabMAb

2 References 6 Images

**Overview**

<table>
<thead>
<tr>
<th><strong>Product name</strong></th>
<th>Anti-Vimentin (phospho S72) antibody [EP1070Y]</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description</strong></td>
<td>Rabbit monoclonal [EP1070Y] to Vimentin (phospho S72)</td>
</tr>
<tr>
<td><strong>Host species</strong></td>
<td>Rabbit</td>
</tr>
<tr>
<td><strong>Specificity</strong></td>
<td>ab52944 only detects Vimentin phosphorylated at Serine 72.</td>
</tr>
</tbody>
</table>
| **Tested applications** | Suitable for: WB, IP, Dot blot  
Unsuitable for: ICC/IF or IHC-P |
| **Species reactivity** | Reacts with: Mouse, Rat, Human |
| **Immunogen**         | Synthetic peptide within Vimentin aa 50-150 (phospho ). The exact sequence is proprietary. |
| **Positive control**  | HeLa cell lysate (untreated and Calyculin A treated); NIH/3T3; C6 lysates. |
| **General notes**     | Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents. |

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.

**Properties**

<table>
<thead>
<tr>
<th><strong>Form</strong></th>
<th>Liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Storage instructions</strong></td>
<td>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.</td>
</tr>
</tbody>
</table>
| **Storage buffer** | pH: 7.20  
Preservative: 0.01% Sodium azide  
Constituents: 59% PBS, 40% Glycerol, 0.5% BSA |
| **Purity**     | Protein A purified |
| **Clonality**  | Monoclonal |
| **Clone number** | EP1070Y |
Isotype

IgG

Applications

Our Abpromise guarantee covers the use of ab52944 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>WB</td>
<td>1/10000.</td>
<td>Detects a band of approximately 54 kDa (predicted molecular weight: 54 kDa).</td>
</tr>
<tr>
<td>IP</td>
<td>1/20.</td>
<td>For unpurified use at 1:40.</td>
</tr>
<tr>
<td>Dot blot</td>
<td>Use at an assay dependent concentration.</td>
<td></td>
</tr>
</tbody>
</table>

Application notes

Is unsuitable for ICC/IF or IHC-P.

Target

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

Tissue specificity

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.

Involvement in disease

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 S72) antibody [EP1070Y] (ab52944)

All lanes: Anti-Vimentin (phospho S72) antibody [EP1070Y] (ab52944) at 1/10000 dilution (purified)

Lane 1: Untreated with C6 (Rat glial tumor glial cell) whole cell lysates
Lane 2: C6 (Rat glial tumor glial cell) starved for 24 hours, then treated with 100ng Calyculin A for 60 minutes whole cell lysates

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

Immunoprecipitation - Anti-Vimentin (phospho S72) antibody [EP1070Y] (ab52944)

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 10ug
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 Reageant (HRP) (ab131366) was used for detection at 1:1000 dilution.

Blocking and diluting buffer: 5% NFDM/TBST.
Western blot - Anti-Vimentin (phospho S72) antibody [EP1070Y] (ab52944)

All lanes : Anti-Vimentin (phospho S72) antibody [EP1070Y] (ab52944) at 1/10000 dilution (purified)

Lane 1 : Untreated with HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysates
Lane 2 : HeLa (Human cervix adenocarcinoma epithelial cell) starved for 24 hours, then treated with 100nM Calyculin A for 30 minutes whole cell lysates

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

Western blot - Anti-Vimentin (phospho S72) antibody [EP1070Y] (ab52944)

All lanes : Anti-Vimentin (phospho S72) antibody [EP1070Y] (ab52944) at 1/10000 dilution (purified)

Lane 1 : Untreated with NIH/3T3 (Mouse embryonic fibroblast) whole cell lysates
Lane 2 : NIH/3T3 (Mouse embryonic fibroblast) treated with 100ng/ml Calyculin A for 30 minutes whole cell lysates

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

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

All lanes: Anti-Vimentin (phospho S72) antibody [EP1070Y] (ab52944) at 1/1000000 dilution

Lane 1: HeLa cell lysate untreated
Lane 2: HeLa cell lysate treated with Calyculin A
Lysates/proteins at 10 µg per lane.

Secondary
All lanes: goat anti-rabbit HRP at 1/2000 dilution

Predicted band size: 54 kDa
Observed band size: 54 kDa

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