

## Product datasheet

### Anti-ASK1 antibody [EP553Y] ab45178

KO **VALIDATED** Recombinant RabMAb

★★★★☆ [3 Abreviews](#) [33 References](#) [7 Images](#)

#### Overview

<b>Product name</b>	Anti-ASK1 antibody [EP553Y]
<b>Description</b>	Rabbit monoclonal [EP553Y] to ASK1
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> Flow Cyt (Intra), WB, IHC-P, ICC/IF
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Human
<b>Immunogen</b>	Synthetic peptide corresponding to Human ASK1 aa 1-100 (N terminal). (Peptide available as <a href="#">ab224650</a> )
<b>Positive control</b>	IHC-P: Human lung carcinoma tissue. WB: HeLa ( <a href="#">ab150035</a> ), A549, and RAW 264.7 whole cell lysates. Flow Cyt (intra): HeLa cells. ICC/IF: RAW 264.7 cells.
<b>General notes</b>	<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>Rat: We have preliminary internal testing data to indicate this antibody may not react with this species. Please contact us for more information.</p>

#### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.5% BSA
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EP553Y

Isotype

IgG

## Applications

### The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab45178 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)		1/100. <b>ab172730</b> - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
WB	★★★★★ (3)	1/1000. Detects a band of approximately 155 kDa (predicted molecular weight: 155 kDa). For unpurified use at 1/2000
IHC-P		1/50. Perform heat mediated antigen retrieval before commencing with IHC staining protocol. See <b>IHC antigen retrieval protocols</b> .
ICC/IF		1/100 - 1/250.

## Target

### Function

Component of a protein kinase signal transduction cascade. Phosphorylates and activates MAP2K4 and MAP2K6, which in turn activate the JNK and p38 MAP kinases, respectively. Overexpression induces apoptotic cell death.

### Tissue specificity

Abundantly expressed in heart and pancreas.

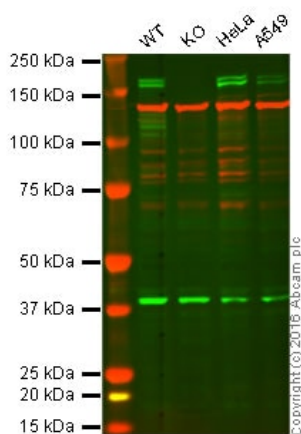
### Sequence similarities

Belongs to the protein kinase superfamily. STE Ser/Thr protein kinase family. MAP kinase kinase subfamily.  
Contains 1 protein kinase domain.

### Post-translational modifications

Dephosphorylated and activated by PGAM5.

## Images



Western blot - Anti-ASK1 antibody [EP553Y]  
(ab45178)

**Lane 1:** Wild-type HAP1 cell lysate (20 µg)

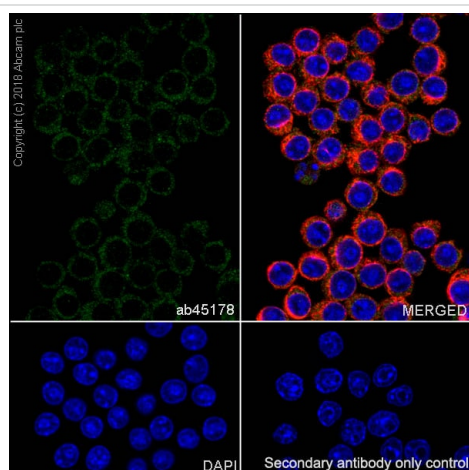
**Lane 2:** ASK1 knockout HAP1 cell lysate (20 µg)

**Lane 3:** HeLa cell lysate (20 µg)

**Lane 4:** A549 cell lysate (20 µg)

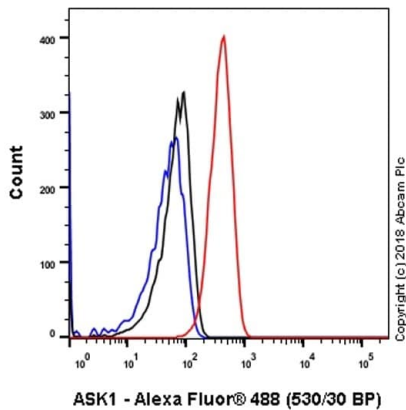
**Lanes 1 - 4:** Merged signal (red and green). Green - ab45178 observed at 155, 160 kDa. Red - loading control, **ab1240**, observed at 124 kDa.

Unpurified ab45178 was shown to recognize ASK1 when ASK1 knockout samples were used, along with additional cross-reactive bands. Wild-type and ASK1 knockout samples were subjected to SDS-PAGE. ab45178 and **ab1240** (loading control to Vinculin) were diluted to 1/2000 and 1/10000 respectively and incubated overnight at 4°C. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed (**ab216776**) secondary antibodies at 1/10000 dilution for 1 hour at room temperature before imaging.



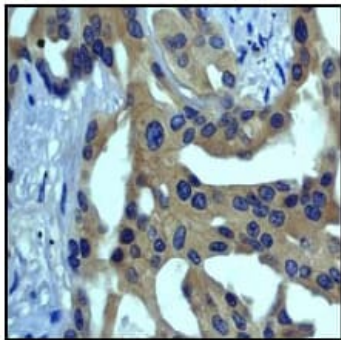
Immunocytochemistry/ Immunofluorescence - Anti-ASK1 antibody [EP553Y] (ab45178)

Immunocytochemistry/ Immunofluorescence analysis of RAW 264.7 (Mouse Abelson murine leukemia virus-induced tumor macrophage) cells labeling ASK1 with Purified ab45178 at 1:100 (9.9 µg/ml). Cells were fixed in 100% Methanol. Cells were counterstained with Ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1:200 (2.5 µg/ml). Goat anti rabbit IgG (Alexa Fluor® 488, **ab150077**) was used as the secondary antibody at 1:1000 (2 µg/ml) dilution. DAPI nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.



Flow Cytometry (Intracellular) - Anti-ASK1 antibody  
[EP553Y] (ab45178)

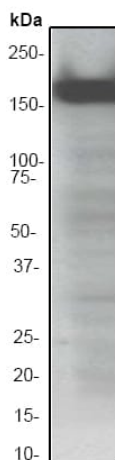
Intracellular Flow Cytometry analysis of HeLa (Human cervix adenocarcinoma epithelial cell) cells labeling ASK1 with purified ab45178 at 1/100 dilution (10 µg/ml) (red). Cells were fixed with 4% Paraformaldehyde. A Goat anti rabbit IgG (Alexa Fluor® 488) secondary antibody was used at 1/2000 dilution. Isotype control - Rabbit monoclonal IgG (Black). Unlabeled control - Cell without incubation with primary antibody and secondary antibody (Blue).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ASK1 antibody [EP553Y] (ab45178)

Unpurified ab45178 (1/10) staining human ASK1 in human lung carcinoma by immunohistochemistry using paraffin embedded tissue.

Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Western blot - Anti-ASK1 antibody [EP553Y] (ab45178)

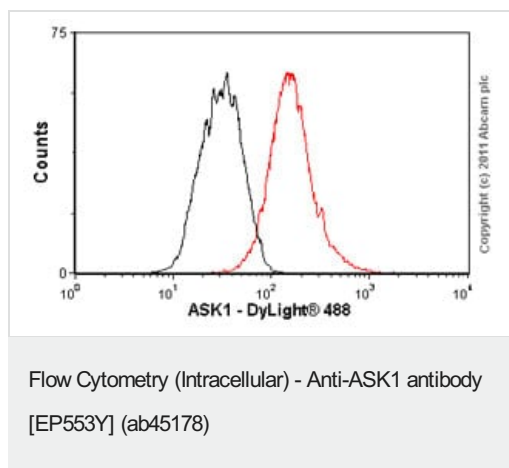
Anti-ASK1 antibody [EP553Y] (ab45178) at 1/2000 dilution (Unpurified) + HeLa cell lysate at 10 µg

### Secondary

Goat anti-rabbit, HRP labelled at 1/2000 dilution





**Predicted band size:** 155 kDa

**Observed band size:** 155 kDa



Overlay histogram showing HeLa cells stained with unpurified ab45178 (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 (ab45178, 1/100 dilution) for 30 min at 22°C. The secondary antibody used was a goat anti-rabbit DyLight® 488 (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<sup>6</sup> cells) used under the same conditions. Acquisition of >5,000 events was performed.

Why choose a recombinant antibody?

 <p><b>Research with confidence</b> Consistent and reproducible results</p>	 <p><b>Long-term and scalable supply</b> Recombinant technology</p>
 <p><b>Success from the first experiment</b> Confirmed specificity</p>	 <p><b>Ethical standards compliant</b> Animal-free production</p>

Anti-ASK1 antibody [EP553Y] (ab45178)

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

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