

## Product datasheet

# Anti-BRAF antibody [EP152Y] ab33899

**KO** **VALIDATED** Recombinant RabMAb

★★★★☆ 7 Abreviews 16 References 7 Images

### Overview

<b>Product name</b>	Anti-BRAF antibody [EP152Y]
<b>Description</b>	Rabbit monoclonal [EP152Y] to BRAF
<b>Host species</b>	Rabbit
<b>Specificity</b>	The mouse and rat recommendation is based on the WB results. We do not guarantee IHC-P for mouse and rat.
<b>Tested applications</b>	<b>Suitable for:</b> WB, IHC-P, IP
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Human
<b>Immunogen</b>	Synthetic peptide within Human BRAF aa 50-150. The exact sequence is proprietary. Database link: <a href="#">P15056</a>
<b>Positive control</b>	WB: HeLa whole cell lysate ( <a href="#">ab150035</a> ) IHC-P: human prostate cancer tissue, Human breast cancer tissue. This antibody also reacts with rat brain tissue. IP: HeLa cells.
<b>General notes</b>	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> .  <b>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.</b>  This product is a <a href="#">recombinant rabbit monoclonal antibody</a> .

### 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 long term. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol, 0.05% BSA

<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EP152Y
<b>Isotype</b>	IgG

## Applications

Our [Abpromise guarantee](#) covers the use of **ab33899** 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
WB	★★★★★	1/1000 - 1/5000. Detects a band of approximately 87 kDa (predicted molecular weight: 85 kDa).
IHC-P	★★★☆☆	1/100. See <a href="#">IHC antigen retrieval protocols</a> .  The mouse and rat recommendation is based on the WB results. We do not guarantee IHC-P for mouse and rat.
IP		1/50.

## Target

**Function** Involved in the transduction of mitogenic signals from the cell membrane to the nucleus. May play a role in the postsynaptic responses of hippocampal neuron.

**Tissue specificity** Brain and testis.

**Involvement in disease** Note=Defects in BRAF are found in a wide range of cancers.  
Defects in BRAF may be a cause of colorectal cancer (CRC) [MIM:114500].  
Defects in BRAF are involved in lung cancer (LNCR) [MIM:211980].  
Defects in BRAF are involved in non-Hodgkin lymphoma (NHL) [MIM:605027]. NHL is a cancer that starts in cells of the lymph system, which is part of the body's immune system. NHLs can occur at any age and are often marked by enlarged lymph nodes, fever and weight loss.  
Defects in BRAF are a cause of cardiofaciocutaneous syndrome (CFC syndrome) [MIM:115150]; also known as cardio-facio-cutaneous syndrome. CFC syndrome is characterized by a distinctive facial appearance, heart defects and mental retardation. Heart defects include pulmonic stenosis, atrial septal defects and hypertrophic cardiomyopathy. Some affected individuals present with ectodermal abnormalities such as sparse, friable hair, hyperkeratotic skin lesions and a generalized ichthyosis-like condition. Typical facial features are similar to Noonan syndrome. They include high forehead with bitemporal constriction, hypoplastic supraorbital ridges, downslanting palpebral fissures, a depressed nasal bridge, and posteriorly angulated ears with prominent helices. The inheritance of CFC syndrome is autosomal dominant.  
Defects in BRAF are the cause of Noonan syndrome type 7 (NS7) [MIM:613706]. Noonan syndrome is a disorder characterized by facial dysmorphic features such as hypertelorism, a downward eyeslant and low-set posteriorly rotated ears. Other features can include short stature, a short neck with webbing or redundancy of skin, cardiac anomalies, deafness, motor delay and variable intellectual deficits.  
Defects in BRAF are the cause of LEOPARD syndrome type 3 (LEOPARD3) [MIM:613707]. LEOPARD3 is a disorder characterized by lentigines, electrocardiographic conduction

abnormalities, ocular hypertelorism, pulmonic stenosis, abnormalities of genitalia, retardation of growth, and sensorineural deafness.

Note=A chromosomal aberration involving BRAF is found in pilocytic astrocytomas. A tandem duplication of 2 Mb at 7q34 leads to the expression of a KIAA1549-BRAF fusion protein with a constitutive kinase activity and inducing cell transformation.

### Sequence similarities

Belongs to the protein kinase superfamily. TKL Ser/Thr protein kinase family. RAF subfamily.

Contains 1 phorbol-ester/DAG-type zinc finger.

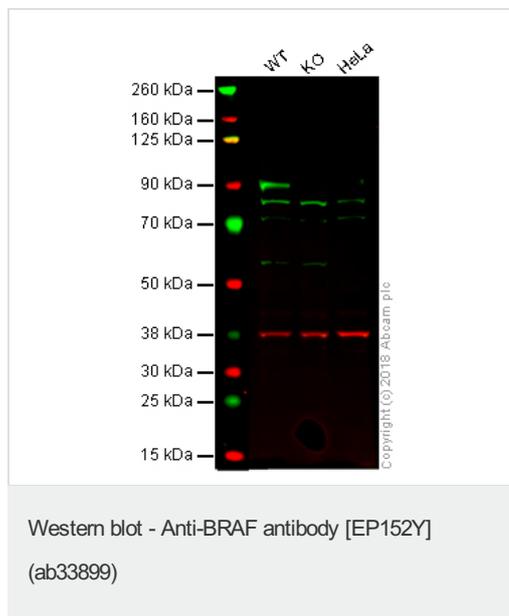
Contains 1 protein kinase domain.

Contains 1 RBD (Ras-binding) domain.

### Cellular localization

Nucleus. Cytoplasm. Cell membrane. Colocalizes with RGS14 and RAF1 in both the cytoplasm and membranes.

### Images



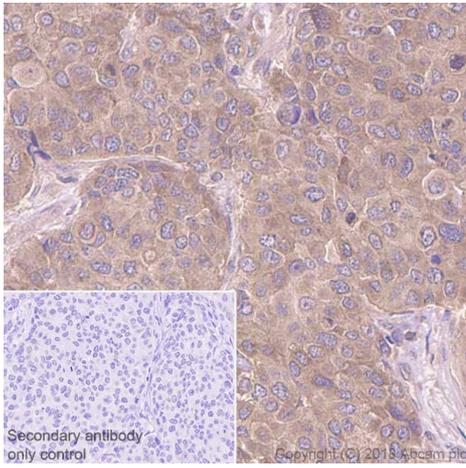
**Lane 1:** Wild-type HAP1 whole cell lysate (40 µg)

**Lane 2:** B Raf knockout HAP1 whole cell lysate (40 µg)

**Lane 3:** HeLa whole cell lysate (40 µg)

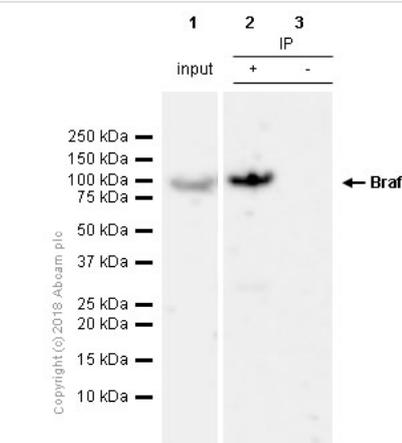
**Lanes 1 - 3:** Merged signal (red and green). Green - ab33899 (unpurified) observed at 90 kDa. Red - loading control, ab8245, observed at 37 kDa.

ab33899 was shown to recognize B Raf in wild-type HAP1 cells as signal was lost at the expected MW in B Raf knockout cells. Additional cross-reactive bands were observed in the wild-type and knockout cells. Wild-type and B Raf knockout samples were subjected to SDS-PAGE. ab33899 and ab8245 (Mouse anti-GAPDH loading control) were incubated overnight at 4°C at 1/1000 dilution and 1/20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed ab216773 and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed ab216776 secondary antibodies at 1/20000 dilution for 1 hour at room temperature before imaging.



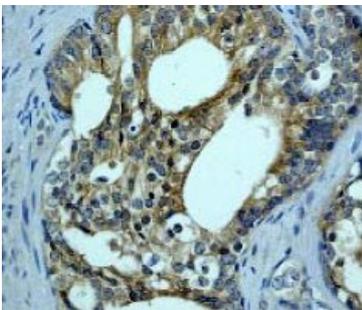
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-BRAF antibody [EP152Y] (ab33899)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human breast cancer tissue sections labeling BRAF with purified ab33899 at 1/100 dilution (4.77 µg/ml). Heat mediated antigen retrieval was performed using 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.



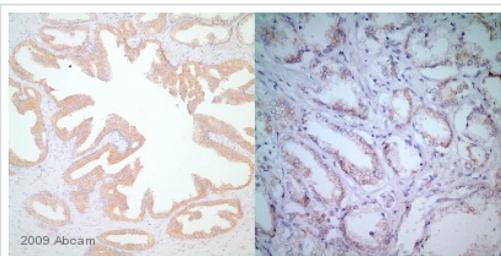
Immunoprecipitation - Anti-BRAF antibody [EP152Y] (ab33899)

ab33899 (Purified) at 1:500 dilution (0.954 µg/ml) immunoprecipitating BRAF in HeLa whole cell lysate.  
 Lane 1 (input): HeLa (human cervix adenocarcinoma epithelial cell) whole cell lysate 10 µg  
 Lane 2 (+): ab33899 & HeLa whole cell lysate  
 Lane 3 (-): Rabbit monoclonal IgG ([ab172730](#)) instead of ab33899 in HeLa whole cell lysate  
 For western blotting, VeriBlot for IP secondary antibody (HRP) ([ab131366](#)) was used as the secondary antibody at 1:1000 dilution. Blocking and diluting buffer: 5% NFDN /TBST .



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-BRAF antibody [EP152Y] (ab33899)

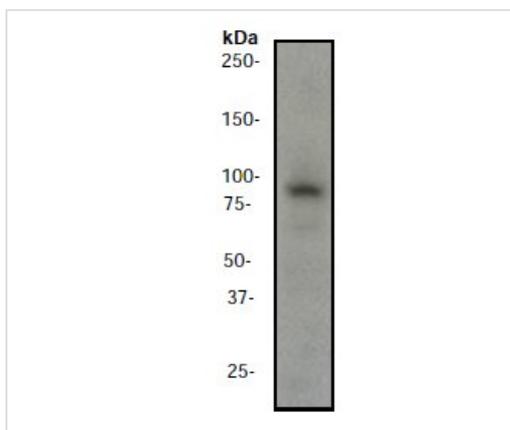
This image shows paraffin embedded human prostate cancer tissue sample stained with ab33899 (unpurified) at 1/250 dilution.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-BRAF antibody [EP152Y] (ab33899)

This image is courtesy of an Abreview submitted by Sedar Balci

ab33899 (unpurified) staining B Raf cells from human prostate tissue by immunohistochemistry (formalin/PFA-fixed paraffin-embedded sections). Cells were formaldehyde fixed and permeabilized in PBS-Tween 20 prior to blocking in 70% serum for 10 minutes at 25°C. The primary antibody was diluted 1/250 and incubated with the sample for 1 hour at 25°C. A biotin conjugated goat polyclonal to mouse Ig was used as the secondary.



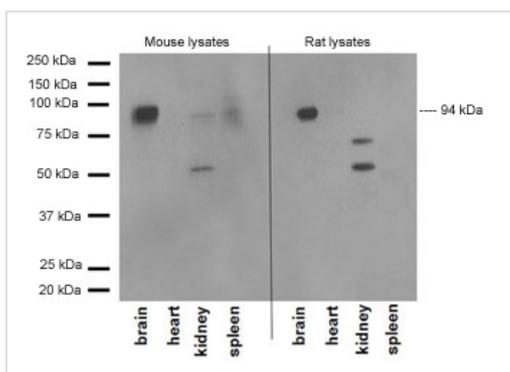
Western blot - Anti-BRAF antibody [EP152Y] (ab33899)

Anti-BRAF antibody [EP152Y] (ab33899) at 1/5000 dilution (unpurified) + HeLa cell lysate

**Predicted band size:** 85 kDa

**Observed band size:** 87 kDa

[why is the actual band size different from the predicted?](#)



Western blot - Anti-BRAF antibody [EP152Y] (ab33899)

**All lanes :** Anti-BRAF antibody [EP152Y] (ab33899) at 1/1000 dilution (unpurified)

**Lane 1 :** Lysate prepared from mouse brain

**Lane 2 :** Lysate prepared from mouse heart

**Lane 3 :** Lysate prepared from mouse kidney

**Lane 4 :** Lysate prepared from mouse spleen

**Lane 5 :** Lysate prepared from rat brain

**Lane 6 :** Lysate prepared from rat heart

**Lane 7 :** Lysate prepared from rat kidney

**Lane 8 :** Lysate prepared from rat spleen

**Predicted band size:** 85 kDa

**Exposure time:** 3 minutes

**Please note:** All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE"

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