

Product datasheet

Anti-Ras antibody [EP1125Y] ab52939

Recombinant RabMAb

★★★★★ [12 Abreviews](#) [68 References](#) [9 Images](#)

Overview

Product name	Anti-Ras antibody [EP1125Y]
Description	Rabbit monoclonal [EP1125Y] to Ras
Host species	Rabbit
Specificity	This antibody is predicted to react with H-Ras, N-Ras and K-Ras.
Tested applications	Suitable for: Flow Cyt (Intra), ICC/IF, WB, IP
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	Flow Cyt (intra): PC-12 cells. WB: Jurkat, 293T, RAW 246.7, Neuro-2a, PC-12 and C6 lysates; Human Ras full length protein. ICC/IF: MCF7 cells. IP: Jurkat whole cell lysate.
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p>

Properties

Form	Liquid
Storage instructions	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.
Storage buffer	<p>pH: 7.20</p> <p>Preservative: 0.01% Sodium azide</p> <p>Constituents: 59% PBS, 40% Glycerol, 0.05% BSA</p>
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EP1125Y

Isotype

IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab52939 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)		1/30. ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody. For unpurified use at 1/100.
ICC/IF		1/500.
WB	★★★★★ (9)	1/5000. Detects a band of approximately 21 kDa (predicted molecular weight: 21 kDa). For unpurified use at 1/10000- 1/50000.
IP	★★★★★ (2)	1/20. For unpurified use at 1/30.

Target

Function

Ras proteins bind GDP/GTP and possess intrinsic GTPase activity.

Involvement in disease

Defects in HRAS are the cause of faciocutaneoskeletal syndrome (FCSS) [MIM:218040]. A rare condition characterized by prenatally increased growth, postnatal growth deficiency, mental retardation, distinctive facial appearance, cardiovascular abnormalities (typically pulmonic stenosis, hypertrophic cardiomyopathy and/or atrial tachycardia), tumor predisposition, skin and musculoskeletal abnormalities.

Defects in HRAS are the cause of congenital myopathy with excess of muscle spindles (CMEMS) [MIM:218040]. CMEMS is a variant of Costello syndrome.

Defects in HRAS may be a cause of susceptibility to Hurthle cell thyroid carcinoma (HCTC) [MIM:607464]. Hurthle cell thyroid carcinoma accounts for approximately 3% of all thyroid cancers. Although they are classified as variants of follicular neoplasms, they are more often multifocal and somewhat more aggressive and are less likely to take up iodine than are other follicular neoplasms.

Note=Mutations which change positions 12, 13 or 61 activate the potential of HRAS to transform cultured cells and are implicated in a variety of human tumors.

Defects in HRAS are a cause of susceptibility to bladder cancer (BLC) [MIM:109800]. A malignancy originating in tissues of the urinary bladder. It often presents with multiple tumors appearing at different times and at different sites in the bladder. Most bladder cancers are transitional cell carcinomas. They begin in cells that normally make up the inner lining of the bladder. Other types of bladder cancer include squamous cell carcinoma (cancer that begins in thin, flat cells) and adenocarcinoma (cancer that begins in cells that make and release mucus and other fluids). Bladder cancer is a complex disorder with both genetic and environmental influences.

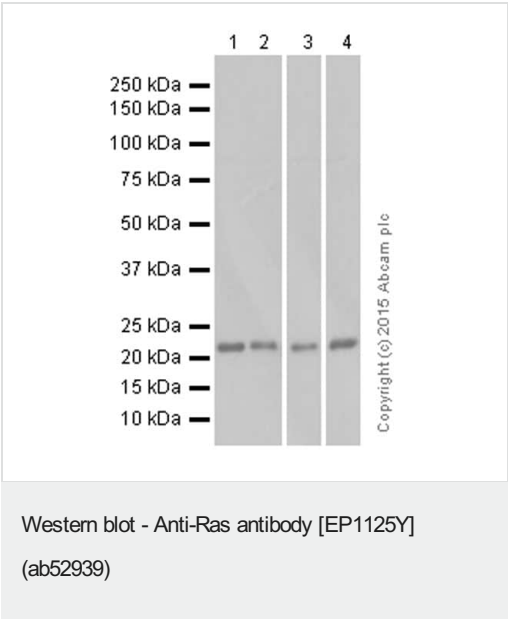
Note=Defects in HRAS are the cause of oral squamous cell carcinoma (OSCC).

Sequence similarities

Belongs to the small GTPase superfamily. Ras family.

Post-translational modifications	<p>Palmitoylated by the ZDHHC9-GOLGA7 complex. A continuous cycle of de- and re-palmitoylation regulates rapid exchange between plasma membrane and Golgi.</p> <p>S-nitrosylated; critical for redox regulation. Important for stimulating guanine nucleotide exchange.</p> <p>No structural perturbation on nitrosylation.</p>
Cellular localization	<p>Cell membrane. Golgi apparatus membrane. The active GTP-bound form is localized most strongly to membranes than the inactive GDP-bound form (By similarity). Shuttles between the plasma membrane and the Golgi apparatus.</p>

Images



All lanes : Anti-Ras antibody [EP1125Y] (ab52939) at 1/5000 dilution (purified)

Lane 1 : Jurkat (human T cell leukemia cell line from peripheral blood) whole cell lysates

Lane 2 : HEK-293T (human epithelial cell line from embryonic kidney transformed with large T antigen) whole cell lysates

Lane 3 : RAW 264.7 (mouse macrophage cell line transformed with Abelson murine leukemia virus) whole cell lysates

Lane 4 : Neuro-2a (mouse neuroblastoma cell line) whole cell lysates

Lysates/proteins at 20 µg per lane.

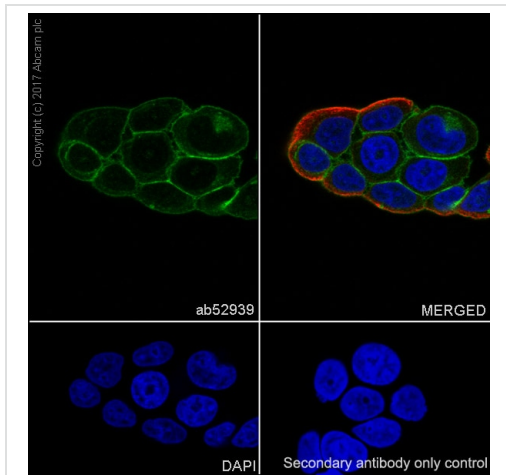
Secondary

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

Predicted band size: 21 kDa

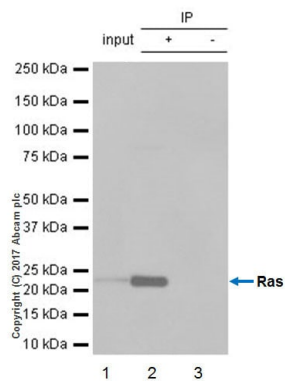
Observed band size: 21 kDa

Blocking and diluting buffer: 5% NFDM/TBST



Immunocytochemistry/ Immunofluorescence - Anti-Ras antibody [EP1125Y] (ab52939)

Immunocytochemistry analysis of MCF7 (human breast adenocarcinoma cell line) cells labeling Ras with Purified ab52939 at 1:500 dilution. Cells were fixed in 4% Paraformaldehyde and permeabilized with 0.1% tritonX-100. Cells were counterstained with Ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1:200 (2.5 µg/ml). **ab150077** Goat anti rabbit IgG(Alexa Fluor® 488) was used as the secondary antibody at 1:1000 dilution. DAPI nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.



Immunoprecipitation - Anti-Ras antibody [EP1125Y] (ab52939)

ab52939 (purified) at 1:20 dilution (2µg) immunoprecipitating Ras in Jurkat whole cell lysate.

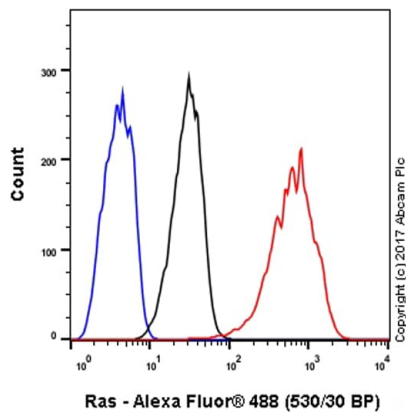
Lane 1 (input): Jurkat (human T cell leukemia cell line from peripheral blood) whole cell lysate 10µg

Lane 2 (+): ab52939 & Jurkat whole cell lysate

Lane 3 (-): Rabbit monoclonal IgG (**ab172730**) instead of ab52939 in Jurkat whole cell lysate

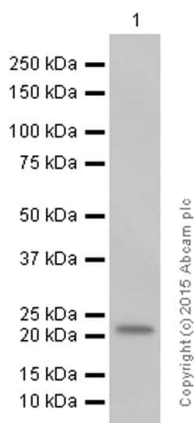
For western blotting, VeriBlot for IP Detection Reagent (HRP) (**ab131366**) was used for detection at 1:1000 dilution.

Blocking and diluting buffer: 5% NFDm/TBST.



Flow Cytometry (Intracellular) - Anti-Ras antibody
[EP1125Y] (ab52939)

Intracellular Flow Cytometry analysis of PC-12 (rat adrenal gland pheochromocytoma cell line) cells labeling Ras with purified ab52939 at 1/30 dilution (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).



Western blot - Anti-Ras antibody [EP1125Y]
(ab52939)

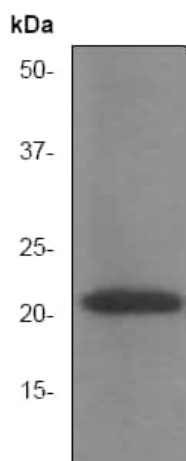
Anti-Ras antibody [EP1125Y] (ab52939) at 1/5000 dilution (purified) + PC-12 (rat adrenal gland pheochromocytoma cell line) whole cell lysates at 15 µg

Secondary

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

Predicted band size: 21 kDa

Blocking and diluting buffer: 5% NFDM/TBST.



Western blot - Anti-Ras antibody [EP1125Y]
(ab52939)

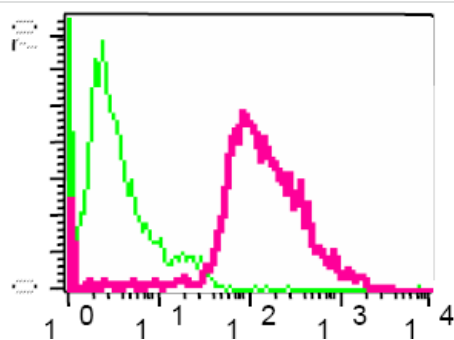
Anti-Ras antibody [EP1125Y] (ab52939) at 1/500000 dilution
(unpurified) + C6 (rat glial tumor cell line) cell lysate at 10 µg/ml

Secondary

goat anti-rabbit HRP at 1/2000 dilution

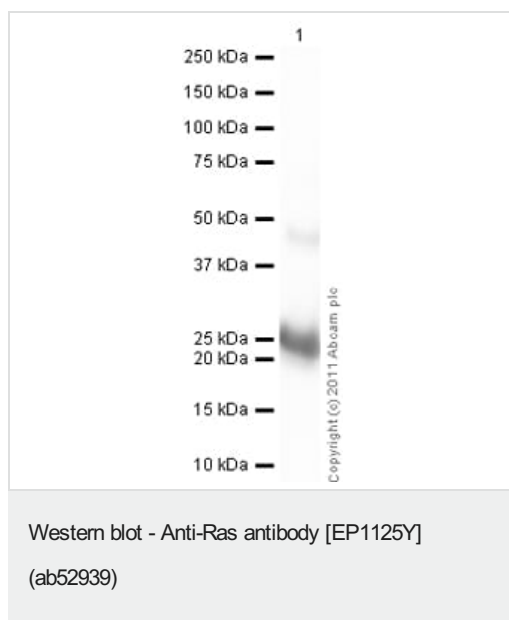
Predicted band size: 21 kDa

Observed band size: 18 kDa



Flow Cytometry (Intracellular) - Anti-Ras antibody
[EP1125Y] (ab52939)

Unpurified ab52939 at 1/100 dilution staining Ras in permeabilized
PC-12 (rat adrenal gland pheochromocytoma cell line) cells by
intracellular flow cytometry (red). Rabbit IgG negative control
(green).



Anti-Ras antibody [EP1125Y] (ab52939) at 1/500 dilution
(unpurified) + Human Ras full length protein ([ab56526](#)) at 0.01 µg

Secondary

Goat Anti-Rabbit IgG H&L (HRP) preadsorbed ([ab97080](#)) at 1/5000 dilution





Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 21 kDa

Exposure time: 1 minute

Why choose a recombinant antibody?

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

Anti-Ras antibody [EP1125Y] (ab52939)

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