abcam

Product datasheet

Anti-CRISPR-Cas9 antibody [EPR18991] - BSA and Azide free ab232379

Recombinant RabMAb

8 Images

Overview

Product name	Anti-CRISPR-Cas9 antibody [EPR18991] - BSA and Azide free
Description	Rabbit monoclonal [EPR18991] to CRISPR-Cas9 - BSA and Azide free
Host species	Rabbit
Tested applications	**Suitable for:** ICC, Flow Cyt (Intra), WB, ICC/IF, IHC-P
Species reactivity	**Reacts with:** Streptococcus pyogenes
Immunogen	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB and Flow Cyt: HEK-293 whole cell lysate transfected with CRISPR-Cas9 (Q99ZW2, Streptococcus pyogenes serotype M1) with GFP-Myc tag.IHC: 293T cells transfected with Streptococcus pyogenes serotype M1 Cas9 (pcDNA3.1(+)-GFP-Myc). ICC/IF: 293T cells transfected with CRISPR-Cas9 with GFP-tag.
General notes	Ab232379 is the carrier-free version of ab189380. This format is designed for use in antibody labeling, including fluorochromes, metal isotopes, oligonucleotides, enzymes. Our carrier-free formats are supplied in a buffer free of BSA, sodium azide and glycerol for higher conjugation efficiency. Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold. ab232379 is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm. *Maxpar® is a trademark of Fluidigm Canada Inc.* This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information see here. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Do Not Freeze.
Storage buffer	pH: 7.2 Constituent: PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR18991
Isotype	IgG

Applications

The Abpromise guarantee Our Abpromise guarantee covers the use of ab232379 in the following tested applications.

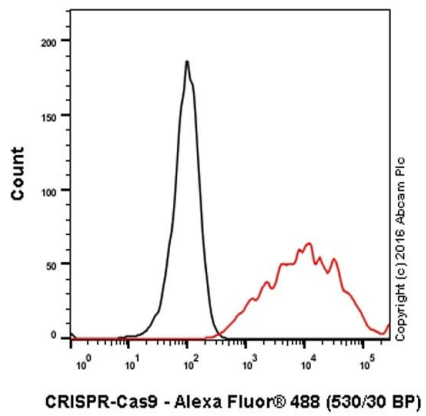
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ICC		Use at an assay dependent concentration.
Flow Cyt (Intra)		Use at an assay dependent concentration.
WB		Use at an assay dependent concentration. Detects a band of approximately 184 kDa (predicted molecular weight: 158 kDa).
ICC/IF		Use at an assay dependent concentration.
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Target

Relevance [FUNCTION] CRISPR (clustered regularly interspaced short palindromic repeat) is an adaptive immune system that provides protection against mobile genetic elements (viruses, transposable elements and conjugative plasmids). CRISPR clusters contain spacers, sequences complementary to antecedent mobile elements, and target invading nucleic acids. CRISPR clusters are transcribed and processed into CRISPR RNA (crRNA) (Probable). In type II CRISPR systems correct processing of pre-crRNA requires a trans-encoded small RNA (tracrRNA), endogenous ribonuclease 3 (rnc) and this protein. The tracrRNA serves as a guide for ribonuclease 3-aided processing of pre-crRNA. Subsequently Cas9/crRNA/tracrRNA endonucleolytically cleaves linear or circular dsDNA target complementary to the spacer. The target strand not complementary to crRNA is first cut endonucleolytically, then trimmed by 3'-5' exonucleolytically. DNA-binding requires protein and both RNA species. Cas9 probably recognizes a short motif in the CRISPR repeat sequences (the PAM or protospacer adjacent motif) to help distinguish self versus nonself.

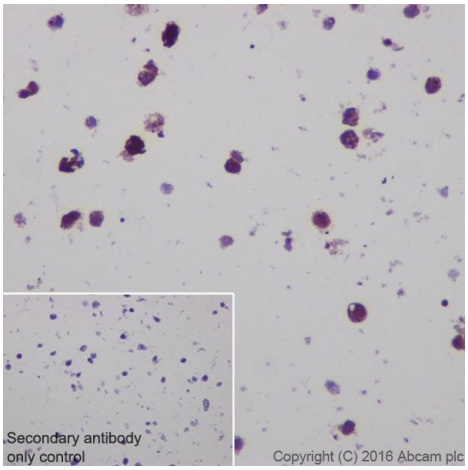
Images



Flow Cytometry (Intracellular) - Anti-CRISPR-Cas9 antibody [EPR18991] - BSA and Azide free (ab232379)

Flow cytometry analysis of HEK-293 (Human epithelial cell line from embryonic kidney) whole cell lysate (transfected with CRISPR-Cas9 (Q99ZW2, Streptococcus pyogenes serotype M1) with GFP-Myc tag) labelling CRISPR-Cas9 (red) with ab189380 at dilution of 1/70. The secondary antibody used was Alexa Fluor® 488 goat-anti-rabbit IgG (1/2000). Cells were fixed with 4% paraformaldehyde. Isotype control antibody was (ab172730) Rabbit monoclonal IgG (black).

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab189380).



Immunocytochemistry - Anti-CRISPR-Cas9 antibody [EPR18991] - BSA and Azide free (ab232379)

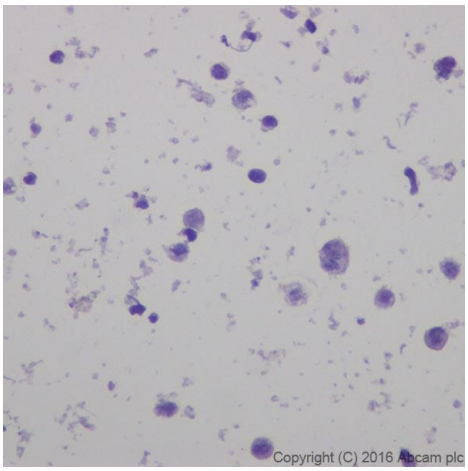
Immunocytochemical analysis of agarose-embedded sections of 293T (Human epithelial cell line from embryonic kidney) cells transfected with *Streptococcus pyogenes serotype M1* Cas9 (pcDNA3.1(+)-GFP-Myc) labeling CRISPR-Cas9 with ab189380 at 1/100 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution.

Positive staining on 293T cells transfected with *Streptococcus pyogenes serotype M1* Cas9 (pcDNA3.1(+)-GFP-Myc) is observed.

Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab189380).



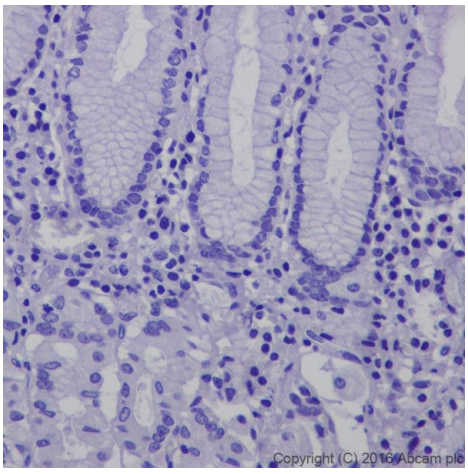
Immunocytochemistry - Anti-CRISPR-Cas9 antibody [EPR18991] - BSA and Azide free (ab232379)

Immunocytochemical analysis of agarose-embedded sections of 293T (Human epithelial cell line from embryonic kidney) cells transfected with blank pcDNA3.1(+)-GFP-Myc vector labeling CRISPR-Cas9 with ab189380 at 1/100 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution.

Negative on 293T cells transfected with blank pcDNA3.1(+)-GFP-Myc vector.

Counter stained with Hematoxylin.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab189380).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CRISPR-Cas9 antibody [EPR18991] - BSA and Azide free (ab232379)

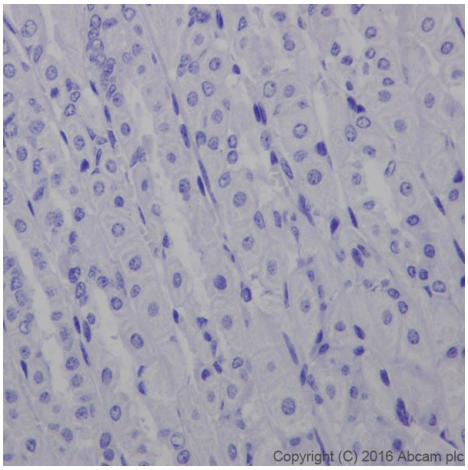
Immunohistochemical analysis of paraffin-embedded Human stomach tissue labeling CRISPR-Cas9 with ab189380 at 1/100 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution.

No staining on Human stomach is observed.

Counter stained with Hematoxylin.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab189380).

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CRISPR-Cas9 antibody [EPR18991] - BSA and Azide free (ab232379)

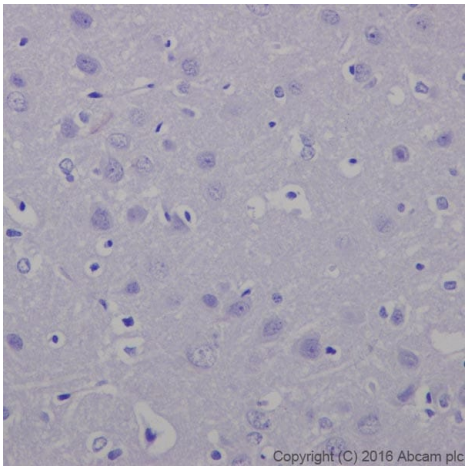
Immunohistochemical analysis of paraffin-embedded Mouse stomach tissue labeling CRISPR-Cas9 with ab189380 at 1/100 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution.

No staining on mouse stomach is observed.

Counter stained with Hematoxylin.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab189380).

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CRISPR-Cas9 antibody [EPR18991] - BSA and Azide free (ab232379)

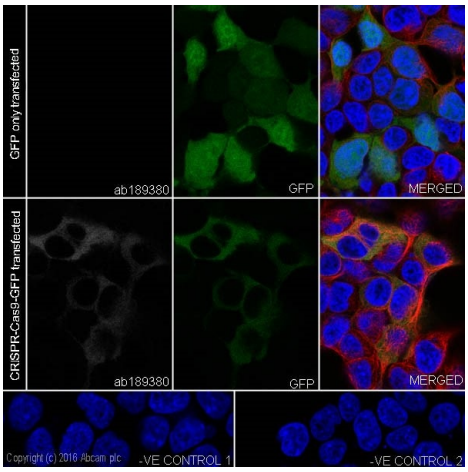
Immunohistochemical analysis of paraffin-embedded Rat cerebrum tissue labeling CRISPR-Cas9 with ab189380 at 1/100 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution.

No staining on rat cerebrum is observed.

Counter stained with Hematoxylin.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab189380).

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunocytochemistry/ Immunofluorescence - Anti-CRISPR-Cas9 antibody [EPR18991] - BSA and Azide free (ab232379)

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized 293T (Human epithelial cell line from embryonic kidney) cells transfected with CRISPR-Cas9-GFP or GFP only, labeling CRISPR-Cas9 with ab189380 at 1/500 dilution, followed by Goat anti-rabbit IgG (Alexa Fluor® 647) (ab150079) secondary antibody at 1/1000 dilution.

Confocal image showing positive staining on 293T cells transfected with CRISPR-Cas9 with GFP-tag.

The nuclear counterstain is DAPI (blue).

Tubulin is detected with ab7291 (anti-Tubulin mouse mAb) at 1/1000 dilution and ab150120 (Alexa Fluor® 594 Goat anti-Mouse secondary) at 1/1000 dilution (red).

The negative controls are as follows:-

-ve control 1: ab189380 at 1/500 dilution followed by ab150120 (Alexa Fluor® 594 Goat anti-Mouse secondary) at 1/1000 dilution.

-ve control 2: ab7291 (anti-Tubulin mouse mAb) at 1/1000 dilution followed by ab150079 (Alexa Fluor® 647 Goat Anti-Rabbit IgG H&L) at 1/1000 dilution.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab189380).

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