

Product datasheet

Anti-CRISPR-Cas9 antibody [EPR19795] - BSA and Azide free ab223153

Recombinant RabMAb

4 Images

Overview

Product name	Anti-CRISPR-Cas9 antibody [EPR19795] - BSA and Azide free
Description	Rabbit monoclonal [EPR19795] to CRISPR-Cas9 - BSA and Azide free
Host species	Rabbit
Tested applications	Suitable for: WB, ICC/IF, Flow Cyt, IP
Species reactivity	Reacts with: Staphylococcus aureus
Immunogen	Recombinant fragment aa 1-400. The exact sequence is proprietary. (subsp. aureus). Database link: J7RUA5
Positive control	WB: HEK-293T whole cell lysate transfected with Myc-His tagged CRISPR-Cas9 (J7RUA5, Staphylococcus aureus) vector. ICC/IF: HEK-293T cells transfected with GFP-tagged CRISPR-Cas9 (J7RUA5, Staphylococcus aureus) expression construct. Flow Cyt: HEK-293T cells transfected with GFP-tagged CRISPR-Cas9 (J7RUA5, Staphylococcus aureus) expression construct. IP: HEK-293T cell lysate transfected with GFP-tagged CRISPR-Cas9 (J7RUA5, Staphylococcus aureus) vector.
General notes	<p>Ab223153 is the carrier-free version of ab203943. This format is designed for use in antibody labeling, including fluorochromes, metal isotopes, oligonucleotides, enzymes.</p> <p>Our carrier-free formats are supplied in a buffer free of BSA, sodium azide and glycerol for higher conjugation efficiency.</p> <p>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.</p> <p>ab223153 is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm.</p> <p><i>Maxpar® is a trademark of Fluidigm Canada Inc.</i></p> <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>

Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to [RabMAb[®] patents](#).

Reproducibility is key to advancing scientific discovery and accelerating scientists' next breakthrough.

Abcam is leading the way with our range of recombinant antibodies, knockout-validated antibodies and knockout cell lines, all of which support improved reproducibility.

We are also planning to innovate the way in which we present recommended applications and species on our product datasheets, so that only applications & species that have been tested in our own labs, our suppliers or by selected trusted collaborators are covered by our Abpromise[™] guarantee.

In preparation for this, we have started to update the applications & species that this product is Abpromise guaranteed for.

We are also updating the applications & species that this product has been "predicted to work with," however this information is not covered by our Abpromise guarantee.

Applications & species from publications and Abreviews that have not been tested in our own labs or in those of our suppliers are not covered by the Abpromise guarantee.

Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, as well as customer reviews and Q&As.

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	EPR19795
Isotype	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab223153** 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		Use at an assay dependent concentration. Detects a band of approximately 124 kDa (predicted molecular weight: 124 kDa).
ICC/IF		Use at an assay dependent concentration.

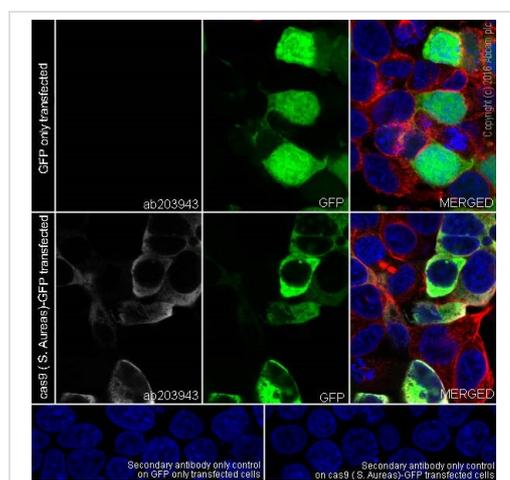
Application	Abreviews	Notes
Flow Cyt		Use at an assay dependent concentration. ab199376 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
IP		Use at an assay dependent concentration.

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 (rc) 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



Immunocytochemistry/ Immunofluorescence - Anti-CRISPR-Cas9 antibody [EPR19795] - BSA and Azide free ([ab223153](#))

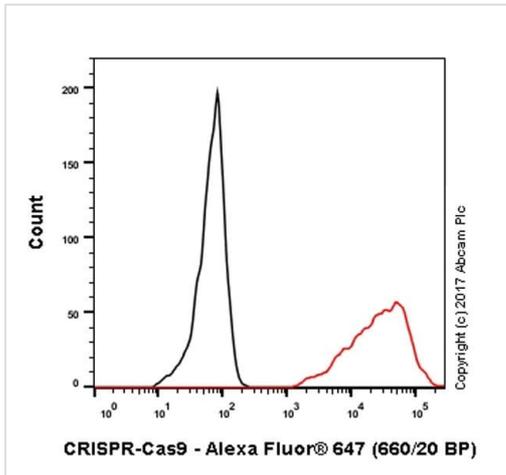
Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HEK-293T (Human epithelial cell line from embryonic kidney) cells labeling CRISPR-Cas9 with [ab203943](#) at 1/100 dilution, followed by Goat anti-rabbit IgG (Alexa Fluor[®] 488) ([ab150077](#)) secondary antibody at 1/1000 dilution (green).

Confocal image showing positive staining on HEK-293T cells transfected with a GFP-tagged CRISPR-Cas9 (J7RUA5, *Staphylococcus aureus subsp. aureus*) expression construct.

The nuclear counter stain is DAPI (blue). Tubulin is detected with [ab195889](#) (Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor[®] 594)) at 1/200 dilution (red).

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat anti-rabbit IgG (Alexa Fluor[®] 488) ([ab150077](#)) 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 ([ab203943](#)).

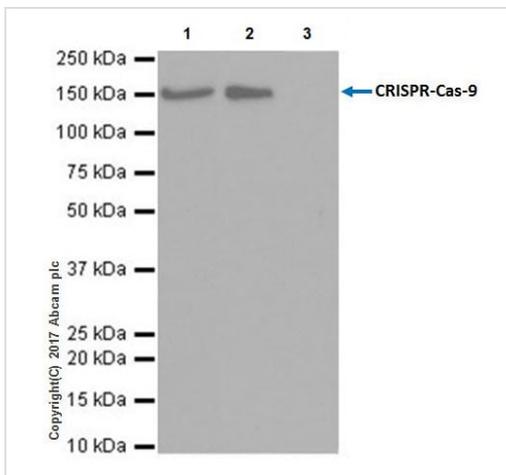


Flow Cytometry - Anti-CRISPR-Cas9 antibody [EPR19795] - BSA and Azide free (ab223153)

Flow cytometric analysis of 4% paraformaldehyde-fixed HEK-293T (Human epithelial cell line from embryonic kidney) cells transfected with a GFP tagged CRISPR-Cas9 (J7RUA5, *Staphylococcus aureus subsp. aureus*) vector, labeling CRISPR-Cas9 with [ab203943](#) at 1/500 dilution (red) compared with a rabbit monoclonal IgG isotype control ([ab172730](#); black). Goat anti rabbit IgG (Alexa Fluor[®] 647) at 1/2000 dilution was used as the secondary antibody.

Note: The image is obtained by gating the GFP-tag positive population.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab203943](#)).



Immunoprecipitation - Anti-CRISPR-Cas9 antibody [EPR19795] - BSA and Azide free (ab223153)

CRISPR-Cas9 was immunoprecipitated from 0.35 mg of HEK-293T (Human epithelial cell line from embryonic kidney) whole cell lysate transfected with a GFP tagged CRISPR-Cas9 (J7RUA5, *Staphylococcus aureus subsp. aureus*) vector, with [ab203943](#) at 1/30 dilution. Western blot was performed from the immunoprecipitate using [ab203943](#) at 1/2000 dilution. VeriBlot for IP Detection Reagent (HRP) ([ab131366](#)), was used for detection at 1/10000 dilution.

Lane 1: HEK-293T whole cell lysate transfected with a GFP tagged CRISPR-Cas9 (J7RUA5, *Staphylococcus aureus subsp. aureus*) vector, 10 µg (Input).

Lane 2: [ab203943](#) IP in HEK-293T whole cell lysate transfected with a GFP tagged CRISPR-Cas9 (J7RUA5, *Staphylococcus aureus subsp. aureus*) vector.

Lane 3: Rabbit monoclonal IgG ([ab172730](#)) instead of [ab203943](#) in HEK-293T whole cell lysate transfected with a GFP tagged CRISPR-Cas9 (J7RUA5, *Staphylococcus aureus subsp. aureus*) vector.

Blocking and dilution buffer and concentration: 5% NFDN/TBST.

Exposure time: 10 seconds.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab203943](#)).

Why choose a recombinant antibody?



Research with confidence
Consistent and reproducible results



Long-term and scalable supply
Recombinant technology



Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

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

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