

Product datasheet

Anti-CRISPR-Cas9 antibody [8C1-F10] ab210571

[1 References](#) [2 Images](#)

Overview

Product name	Anti-CRISPR-Cas9 antibody [8C1-F10]
Description	Mouse monoclonal [8C1-F10] to CRISPR-Cas9
Host species	Mouse
Tested applications	Suitable for: WB, ICC/IF
Species reactivity	Reacts with: Streptococcus pyogenes
Immunogen	Recombinant fragment corresponding to Streptococcus pyogenes CRISPR-Cas9 (N terminal).
Positive control	ICC-IF: NIH-3T3 Cas9-expressing cells
General notes	<p>This antibody clone is manufactured by Abcam.</p> <p>If you require this antibody in a particular buffer formulation or a particular conjugate for your experiments, please contact orders@abcam.com or you can find further information here.</p> <p>Reproducibility is key to advancing scientific discovery and accelerating scientists' next breakthrough.</p> <p>Abcam is leading the way with our range of recombinant antibodies, knockout-validated antibodies and knockout cell lines, all of which support improved reproducibility.</p> <p>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.</p> <p>In preparation for this, we have started to update the applications & species that this product is Abpromise guaranteed for.</p> <p>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.</p> <p>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.</p> <p>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.</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Store at -20°C.
Storage buffer	Preservative: 0.02% Sodium azide Constituent: PBS
Purity	Protein G purified
Clonality	Monoclonal
Clone number	8C1-F10
Isotype	IgG2b

Applications

Our [Abpromise guarantee](#) covers the use of **ab210571** in the following tested applications.

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

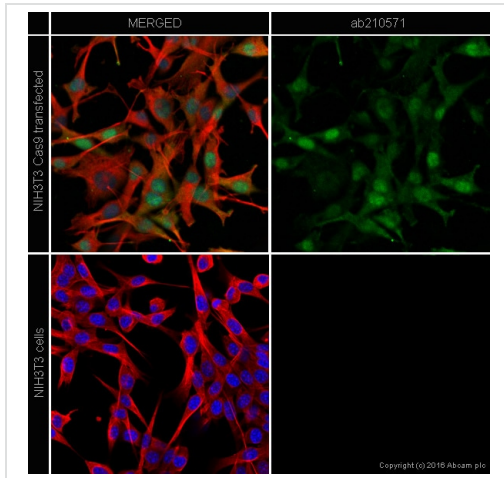
Application	Abreviews	Notes
WB		Use a concentration of 1 - 5 µg/ml. Detects a band of approximately 160 kDa (predicted molecular weight: 160 kDa).
ICC/IF		Use a concentration of 5 - 10 µg/ml.

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



Immunocytochemistry/ Immunofluorescence - Anti-CRISPR-Cas9 antibody [8C1-F10] (ab210571)

ab210571 stained in NIH3T3 cells. Untreated and Cas9 transfected cells were fixed with 4% paraformaldehyde (10min) at room temperature and incubated with PBS containing 10% goat serum, 0.3 M glycine, 1% BSA and 0.1% triton for 1h at room temperature to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody ab210571 at 10µg/ml and ab6046 (Rabbit polyclonal to beta tubulin) at 1ug/ml overnight at +4°C. The secondary antibodies were ab150177 (colored green) used at 1 ug/ml and ab150087 (pseudo-colored red) used at 2ug/ml for 1 hour at room temperature. DAPI was used to stain the cell nuclei (colored blue) at a concentration of 1.43µM for 1 hour at room temperature.



Western blot - Anti-CRISPR-Cas9 antibody [8C1-F10] (ab210571)

All lanes : Anti-CRISPR-Cas9 antibody [8C1-F10] (Ab210571) at 1 µg/ml

Lane 1 : NIH3T3 non-transfected cell lysate

Lane 2 : NIH3T3 cells overexpressing CRISPR-Cas9

Lysates/proteins at 10 µg per lane.

Secondary

All lanes : Goat polyclonal to Mouse IgG - H&L - Pre-Adsorbed (HRP) at 1/5000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 160 kDa

Exposure time: 10 seconds

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