

## Product datasheet

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

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

#### Overview

<b>Product name</b>	Anti-CRISPR-Cas9 antibody [8C1-F10]
<b>Description</b>	Mouse monoclonal [8C1-F10] to CRISPR-Cas9
<b>Host species</b>	Mouse
<b>Tested applications</b>	<b>Suitable for:</b> WB, ICC/IF
<b>Species reactivity</b>	<b>Reacts with:</b> Streptococcus pyogenes
<b>Immunogen</b>	Recombinant fragment corresponding to Streptococcus pyogenes CRISPR-Cas9 (N terminal).
<b>Positive control</b>	ICC-IF: NIH-3T3 Cas9-expressing cells
<b>General notes</b>	<p>This antibody clone is manufactured by Abcam. If you require a custom buffer formulation or conjugation for your experiments, please contact <a href="mailto:orders@abcam.com">orders@abcam.com</a>.</p> <p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>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, along with publications, customer reviews and Q&amp;As</p>

#### Properties

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

#### Applications

## The Abpromise guarantee

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.

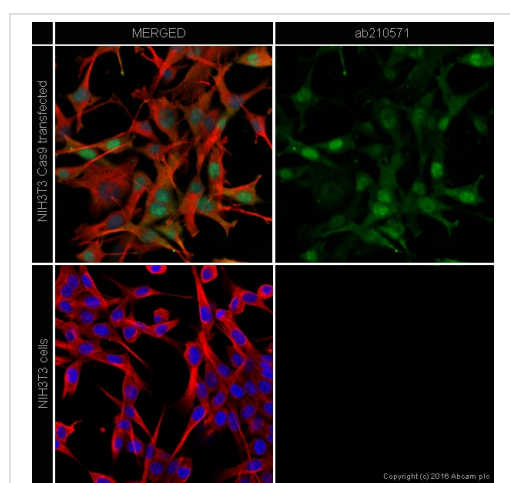
Application	Abreviews	Notes
WB		Use a concentration of 1 - 5 µg/ml. Detects a band of approximately 160 kDa (predicted molecular weight: 160 kDa).
ICC/IF		Use a concentration of 5 - 10 µg/ml.

## Target

### Relevance

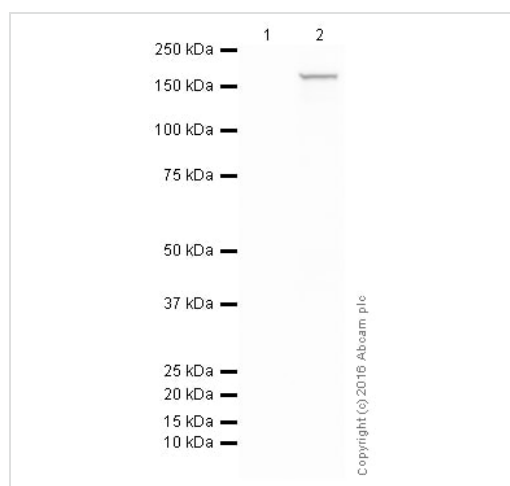
[FUNCTION] CRISPR (clustered regularly interspaced short palindromic repeat) is an adaptive immune system that provides protection against mobile genetic elements (viruses, transposable elements and conjugative plasmids). CRISPR clusters contain spacers, sequences complementary to antecedent mobile elements, 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

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

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