

## CRISPR/Cas9 Polyclonal Antibody

(Catalog No. A-1111)

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### Background:

The discovery of CRISPR (Clustered Regularly Interspaced Short Palindromic Repeats) and Cas9 (CRISPR associated system or CRISPR associated protein 9 nuclease) found in bacteria to work as a defense mechanism against foreign DNA, has proven to be an invaluable tool to target and modify a genomic sequence in gene editing and genetic engineering applications. The system, known as CRISPR/Cas9, allows for sequence-specific cleavage of a targeted genomic locus by delivering the RNA-guided nuclease (Cas9) and appropriate guide RNAs (gRNA) into a cell. In addition, Protospacer Adjacent Motif (PAM) sequence immediately following the specificity sequence is necessary for successful binding of the Cas9 nuclease.

### Concentration:

1 mg/ml

### Description:

Rabbit polyclonal antibody to CRISPR/Cas9, generated with synthesized peptide corresponding to sequence of Cas9, with further optimization for IP and ChIP due to recognition of multiple epitopes.

### Purification:

Protein A purified

### Specificity:

Recognizes both Cas9 and dCas9 (nuclease deficient Cas9)

### Reactivity:

Species Independent

### Isotype:

IgG

### Formulation:

Liquid containing 0.05% Sodium Azide, 1X TBS (pH7.4), 0.5% BSA, 40% Glycerol.

### Storage:

Store at 4°C for 3 weeks. For long term storage, aliquot and then store at -20°C or -80°C. Avoid repeated freeze/thaw cycles.

### Application:

WB: (1:2000 - 1:5000), ELISA: (1:5000-1:10000), ChIP or IP: (2 µg/10<sup>6</sup> cells), IF: (1:200-1:500), ICC: (1:200-1:500)

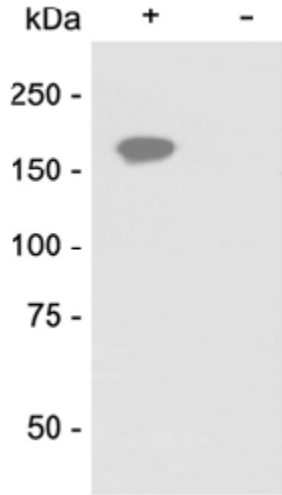
### Handling Recommendations:

For maximum recovery of the products, centrifuge the vial prior to opening the cap.

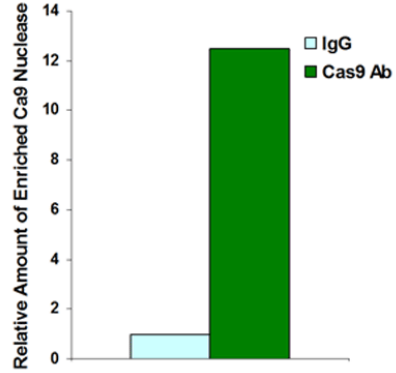
### Ordering Information

Products	Size	Cat. No.
CRISPR/Cas9 Polyclonal Antibody	10 µg	A-1111-010
	50 µg	A-1111-050
	100 µg	A-1111-100

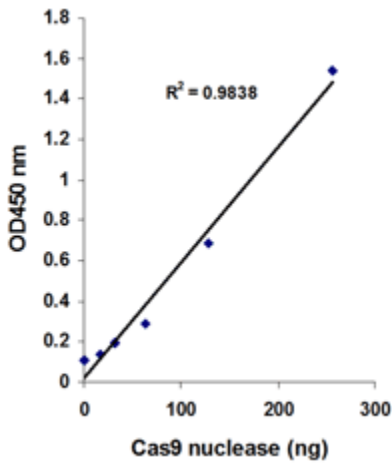
*This product is for research purposes only. Not intended for use in diagnostic procedures.*



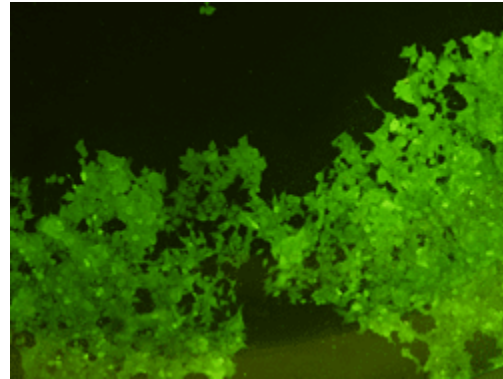
▲ **Fig. 1.** Western blot analysis on Cas9 transfected 293 cells (+) and un-transfected 293 cells (-).



▲ **Fig. 3.** Successful immunoprecipitation of Cas9 nuclease by CRISPR/Cas9 pAb (Cat. #A-1111). 200 ng of nuclease was immunoprecipitated with 0.5 µg of CRISPR/Cas9 pAb. Rabbit non-immune IgG was used as control.



▲ **Fig. 2.** Specific detection of Cas9 nuclease by CRISPR/Cas9 pAb (Cat. #A-1111) via ELISA. Cas9 nuclease was added into the assay wells and detected with CRISPR/Cas9 pAb (at 1:1000 dilution).



▲ **Fig. 4.** Immunofluorescence analysis of CRISPR/Cas9 transfected 293 cells. The cell expressing CRISPR/Cas9 can be detected using rabbit anti-CRISPR/Cas9 (1:500) followed by FITC (1:1000) goat anti-rabbit IgG.