

CRISPR-Cas9 SP Rabbit mAb

Catalog No: #49498

Package Size: #49498-1 50ul #49498-2 100ul

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Description

Product Name	CRISPR-Cas9 SP Rabbit mAb
Clone No.	JM11-55
Purification	Affinity-chromatography
Applications	WB,IHC,ICC/IF,FC
Species Reactivity	Recombinant Cas9 Streptococcus pyogenes
Immunogen Description	Recombinant fragment derived from Streptococcus pyogenes
Other Names	Cas9 antibody CRISPR-associated endonuclease Cas9/Csn1 antibody CRISPR-Cas9/Csn1 antibody csn1 antibody SpyCas9 antibody
Accession No.	Swiss-Prot#:Q99ZW2
Calculated MW	158 kDa
Formulation	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Storage	Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

Application Details

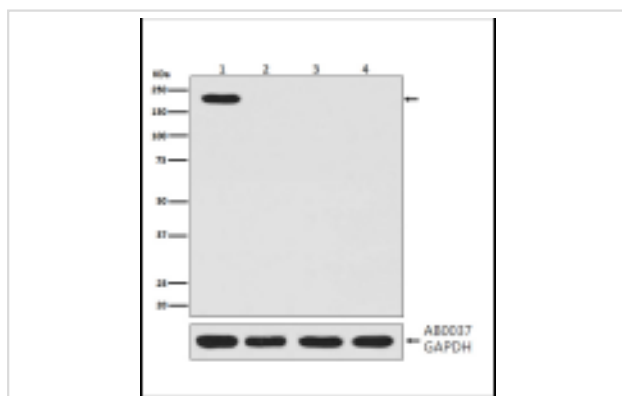
WB 1:1000~1:5000

IHC 1:50~1:200

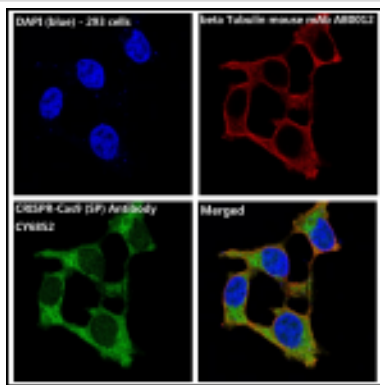
ICC/IF 1:50~1:200

FC 1:50

Images



Western blot analysis of CRISPR-Cas9 SP expression in (1) 293T cell lysate transfected with CRISPR-Cas9; (2) 293T cell lysate; (3) 3T3 cell lysate; (4) PC12 cell lysate.



Immunofluorescent analysis of 293T cells transfected with CRISPR-SpCas9, using CRISPR-Cas9 SP Antibody .

Background

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.

References

1. Vojta A et al. Repurposing the CRISPR-Cas9 system for targeted DNA methylation. *Nucleic Acids Res* N/A:N/A (2016).
2. Cinesi C et al. Contracting CAG/CTG repeats using the CRISPR-Cas9 nickase. *Nat Commun* 7:13272 (2016).

Note: This product is for in vitro research use only and is not intended for use in humans or animals.