SunLong Biotech Co.,LTD
Tel: 0086-571-56623320 Fax:0086-571-56623318
E-mail:sales@sunlongbiotech.com
www.sunlongbiotech.com

Mouse Anti-Cas9 antibody

SLM-52042M

Product Name	Cas9
Chinese Name	CRISPR/Cas9 单克隆抗体
Alias	CAS9_STRP1; CRISPR-associated endonuclease Cas9/Csn1; EC:3.1.-.-; SpCas9; SpyCas9; CRISPR-Cas9/Csn1; csn1; SPy_1046;
Immunogen Species	Mouse
Clonality	Monoclonal
Clone NO.	1E8
React Species	Streptococcus pyogenes
Applications	WB=1:500-2000,ICC/IF=1:50-200 not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Theoretical molecular weight	160kDa
Form	Liquid
Concentration	1mg/ml
immunogen	Recombinant fragment corresponding to Streptococcus pyogenes CRISPR-Cas9 (N terminal)
Lsotype	IgM
Purification	affinity purified by Protein A
Buffer Solution	Streptococcus pyogenes1M TBS(pH7.4) with 1% BSA, Streptococcus pyogenes3% Proclin300 and 50% Glycerol.
Storage	Shipped at 4℃. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Attention	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
PubMed	PubMed
Product Detail	The Clustered Regularly Interspaced Short Palindromic Repeats (CRISPR) Type II system is currently the most commonly used RNA-Guided Endonuclease technology for genome engineering. There are two distinct components to this system: (1) a guide RNA and (2) an endonuclease, in this

case the CRISPR associated (Cas) nuclease, Cas9. The gRNA/Cas9 complex is recruited to the target sequence by the base-pairing between the gRNA sequence and the complement to the target sequence in the genomic DNA. For successful binding of Cas9, the genomic target sequence must also contain the correct Protospacer Adjacent Motiff (PAM) sequence immediately following the target sequence.

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.

Subunit:
Monomer. Binds crRNA and tracrRNA.

Similarity:
Belongs to the CRISPR-associated protein Cas9 family.
Subtype II-A subfamily.

SWISS:
Q99ZW2

Gene ID:
N/A

Database links:

SwissProt: Q99ZW2 Streptococcus pyogenes

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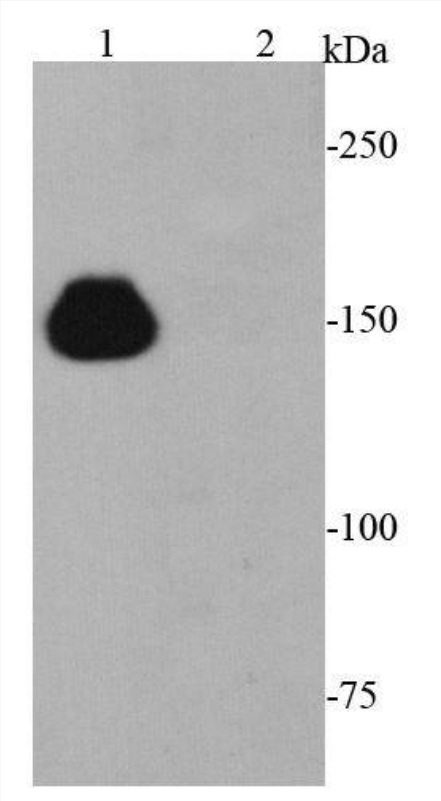
Product Picture



Sample:

Lane 1: CRISPR-Cas9 transfected 293 cells lysate

Lane 2: Non-transfected 293 cells lysate

Primary: Anti-CRISPR-Cas9 (SLM-52042M) at 1/5000 dilution

Secondary: Goat Anti-Mouse IgG - HRP at 1/5000 dilution

Predicted band size: 160 kD

Observed band size: 150 kD