

Anti-CRISPR-Cas9 SP Antibody [JM11-55]

ET1703-85



Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Streptococcus pyogenes
Applications:	WB, IF-Cell, IF-Tissue, IHC-P, FC
Molecular Wt:	158 kDa
Clone number:	JM11-55

Description: 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.

Immunogen: Recombinant protein within Streptococcus pyogenes cas9 aa 730-990 / 1368.

Positive control: 293T transfected with Cas9 cell lysates.

Database links: SwissProt: Q99ZW2 StreptococcusPyogenes

Recommended Dilutions:

WB	1:1,000-1:5,000
IF-Cell	1:50-1:200
IF-Tissue	1:50-1:200
IHC-P	1:50-1:200
FC	1:50-1:100

Storage Buffer: 1*TBS (pH7.4), 0.05% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Shipped at 4°C. Store at +4°C short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20°C long term.

Purity: Protein A affinity purified.

Hangzhou Huan Biotechnology Co., Ltd.

Orders:0086-571-88062880

Technical:0086-571-89986345

Service mail:support@huabio.cn

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Images

Fig1: Western blot analysis of CRISPR-Cas9 SP on 293T transfected with Cas9 cell lysates with Rabbit anti-CRISPR-Cas9 SP antibody (ET1703-85) at 1/1,000 dilution.

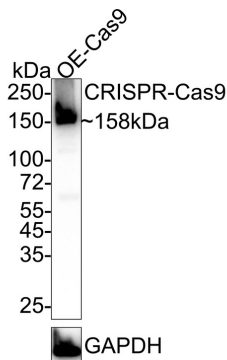
Lysates/proteins at 20 µg/Lane.

Predicted band size: 158 kDa
Observed band size: 158 kDa

Exposure time: 25 seconds; ECL: K1801;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (ET1703-85) at 1/1,000 dilution was used in 5% NFDM/TBST at 4°C overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.



Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background 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).

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