



Rabbit Anti-Cas9 polyclonal antibody (DPAB-WB152)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Immunogen	CAS9 Synthetic peptide conjugated to KLH derived from within residues 1150-1200 of S. Pyogenes enzyme cas9 (Used in our CRISPR/Cas9 Genome Editing system)
Isotype	IgG
Source/Host	Rabbit
Species Reactivity	Streptococcus pyogenes
Purification	Affinity purified
Conjugate	Unconjugated
Concentration	1 mg/ml
Size	100 µl
Buffer	PBS (PH 7.3) containing 1% BSA, 50% glycerol and 0.02% sodium azide.
Preservative	0.02% Sodium Azide
Storage	Shipped at -20°C. Upon delivery store at -20°C. Dilute in PBS (pH7.3) if necessary. Stable for 12 months from date of receipt. Avoid repeated freeze-thaws.

BACKGROUND

Introduction	CRISPR (clustered regularly interspaced short palindromic repeat) is an adaptive immune system that provides protection against mobile genetic elements (viruses, transposable
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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.

Keywords

Cas9; CRISPR-associated endonuclease Cas9/Csn1; CRISPR-Cas9/Csn1; csn1; SpyCas9; CRISPR; CRISPR-associated protein 9 nuclease
