

Cas9 Rabbit mAb

Catalog No.: A23005 Recombinant

Basic Information

Observed MW

170kDa

Calculated MW

158kDa

Category

Primary antibody

Applications

ELISA,WB

Cross-Reactivity

Human, Other (Wide Range Predicted)

CloneNo number

ARC57839

Background

CRISPR-associated protein 9 (Cas9) is an RNA-guided DNA nuclease and is a component of the *Streptococcus pyogenes* CRISPR-antiviral immune system that provides adaptive immunity against extrachromosomal genetic material. The mechanism of CRISPR antiviral action involves three steps: (i) acquisition of foreign DNA by host bacteria; (ii) synthesis and maturation of CRISPR RNA (crRNA), followed by formation of RNA-Cas nuclease-protein complex; and (iii) acquisition of foreign DNA by the host bacterium; The complex recognizes foreign DNA and undergoes directed interference by cleavage by Cas nuclease activity. The type II CRISPR/Cas antiviral immune system provides a powerful tool for precise genome editing and has the potential for specific regulation of genes and therapeutic applications. The Cas9 protein and guide RNA (comprising a fusion between crRNA and transactivating crRNA (tracrRNA)) must be introduced or expressed in the cell. A 20-nucleotide sequence at the 5' end of the guide RNA guides Cas9 to a specific DNA target site. Thus, Cas9 can be "programmed" to cut a variety of DNA sites in vitro and in cells and organisms. The CRISPR/Cas9 genome editing tool has been used in many organisms, including mouse and human cells. Studies have shown that CRISPR can be used to generate mutant alleles or reporter genes in rodent and primate embryonic stem cells.

Recommended Dilutions

WB 1:500 - 1:1000

Immunogen Information

Gene ID

901176

Swiss Prot

Q99ZW2

Immunogen

Recombinant fusion protein containing a sequence corresponding to amino acids 450-730 of *Streptococcus pyogenes* m1 Cas9. (NP_269215.1).

Synonyms

CAS9; Cas9

Contact

 | 400-999-6126

 | cn.market@abclonal.com.cn
 | www.abclonal.com.cn

Product Information

Source

Rabbit

Isotype

IgG

Purification

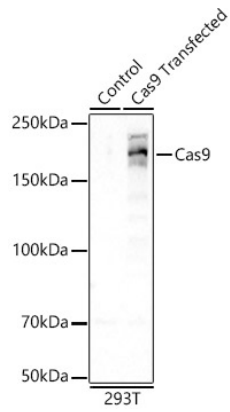
Affinity purification

Storage

Store at -20°C. Avoid freeze / thaw cycles.

Buffer: PBS with 0.05% proclin300,0.05% BSA,50% glycerol,pH7.3.

Validation Data



Western blot analysis of lysates from 293T cells, using Cas9 Rabbit mAb (A23005) at 1:1000 dilution.
Secondary antibody: HRP Goat Anti-Rabbit IgG (H+L) (AS014) at 1:10000 dilution.
Lysates/proteins: 25µg per lane.
Blocking buffer: 3% nonfat dry milk in TBST.
Detection: ECL Basic Kit (RM00020).
Exposure time: 90s.