



Anti-CASP9 (C-terminal) monoclonal antibody, clone 20D22-B23 (CABT-B1136)

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

PRODUCT INFORMATION

Specificity	It recognizes an epitope located in the C-terminal region of Cas9.
Immunogen	His-tagged recombinant S.pyogenes Cas9 C-terminal fragment.
Isotype	IgG1, κ
Source/Host	Mouse
Species Reactivity	Bacteria
Clone	20D22-B23
Purification	Protein G Purified
Conjugate	Unconjugated
Applications	ICC, WB, IP
Epitope	C-terminal region.
Molecular Weight	~158 kDa observed. 158.4 kDa calculated.
Format	Liquid
Concentration	Please refer to lot specific datasheet.
Size	100 µg
Buffer	0.1 M Tris-Glycine (pH 7.4), 150 mM NaCl with 0.05% sodium azide.
Preservative	0.05% Sodium Azide

BACKGROUND

Introduction

CRISPR-associated endonuclease Cas9/Csn1 (UniProt Q99ZW2; also known as SpyCas9) is encoded by the *Streptococcus pyogenes* serotype M1 gene *cas9* (also known as *csn1*) gene (Gene ID 901176). Clustered regularly interspaced short palindromic repeats (CRISPRs) are DNA loci containing short repetitions of base sequences complementary to antecedent mobile elements and target invading nucleic acids. Each repetition is followed by short segments of spacer DNA from previous exposures to a virus. Cas9 is an essential endonuclease in *Streptococcus pyogenes* serotype M1s CRISPR immune system that confers resistance to foreign genetic elements such as plasmids and phages. CRISPR clusters are transcribed and processed into CRISPR RNA (crRNA). In type II CRISPR systems, correct processing of pre-crRNA requires a trans-encoded small RNA (tracrRNA), endogenous ribonuclease 3 (*rnc*), and Cas9. 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, and then trimmed 3-5 exonucleolytically.

GENE INFORMATION

UniProt ID

[Q99ZW2](#)
