

## Cas9 Nuclease

Cat.#	Size	Conc.
M058S	70 pmol	1,000 nM
M058H	400 pmol	20,000 nM
M058HL	2,000 pmol	20,000 nM

Expire date:

Store at -20°C

Supplied with: 10X Cas9 Nuclease Buffer

For Research Use Only. Not for use in diagnostic procedures.

ISO9001 ISO14001 ISO13485

### Product description

Cas9 Nuclease is the recombinant *Streptococcus pyogenes* Cas9 protein purified from *E. coli*. Cas9 is an RNA-guided endonuclease that catalyzes site-specific cleavage of double stranded DNA. The location of the break is within the target sequence 3 bases from the NGG PAM (Protospacer Adjacent Motif). The PAM sequence, NGG, must follow the targeted region on the opposite strand of the DNA with respect to the region complementary sgRNA sequence.

### Characteristics

- Molecular weight : 163 Kda
- Untagged Cas9 (wt) protein

### Applications

- Genome editing

### Quality control

- Purity : >95% on SDS-PAGE
- Endonuclease-free
- Exonuclease-free
- RNase-free
- Non-Specific DNase Activity (16 hour)

### Storage buffer

10 mM Tris-HCl, 300 mM NaCl, 0.1 mM EDTA, 1 mM DTT, 50% Glycerol, pH 7.4

### Note

1,000 nM is equal to 159 ng/ $\mu$ l

### Limitation of Liability

In no event will Enzynomics be liable for any direct, indirect, consequential, or incidental damages arising out of the use, the results of use, or the inability to use this product.

### Standard reaction conditions

Nuclease-free water	20 $\mu$ l
10X Cas9 Nuclease Buffer	3 $\mu$ l
300 nM sgRNA	3 $\mu$ l (30 nM final)
Cas9 Nuclease	1 $\mu$ l (~30 nM final)

→ Pre-incubate for 10 minutes at 25°C

→ Add 3  $\mu$ l of 30nM substrate DNA to each sample

→ Incubate for 15 minutes at 37°C

→ Add 1  $\mu$ l of Proteinase K to each sample, Mix thoroughly

→ Incubate for 10 minutes at room temperature

\*The sgRNA, nuclease-free water and Proteinase K are not included.

\*'Standard conditions' is only a general recommendation. The experimental conditions should be adjusted according to the purpose and sample.

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