



For research use only

ISO9001

nCas9

Product	Quantity	Cat. No.	Remarks
nCas9	50 µg	EBT-5012	0.5 µg/µl

Description

Cas9 nuclease, from *Streptococcus pyogenes*, is an RNA-guided endonuclease that catalyzes a site-specific cleavage of double stranded DNA. The cleavage occurs within the target sequence 3 bases from the NGG PAM (Protospacer Adjacent Motif). The PAM sequence must follow the targeted region on the opposite strand of the DNA with respect to the region complementary sgRNA sequence. Transfer of a custom-designed crRNA molecule for target gene together with tracrRNA and Cas9 protein will lead to a specific cleavage of target sequence in cells.

nCas9, a point mutant (D10A) of wild-type Cas9 nuclease, has a nick endonuclease activity. nCas9 nuclease contains a single nuclear localization sequence (NLS) at the C-terminus of the protein.

nCas9 nuclease is an optimized recombinant enzyme, which is expressed and purified from *E.coli* strain as 6xHis-tagged form at the N-terminal end.

Applications

- Genome editing

Reagents Supplied & Storage Condition

- nCas9 nuclease : 0.5 µg/µl, Store at -20°C.
- 10x Cas9 Reaction Buffer : Store at 4°C.

Reaction Condition

1x Cas9 Reaction Buffer. Incubate at 37°C.

10x Reaction Buffer

500 mM Tris-HCl (pH 7.9), 1 M NaCl, 100 mM MgCl₂, 10 mM DTT

Storage Buffer

10 mM Tris-HCl (pH 7.5), 50% glycerol, 300 mM NaCl, 0.1 mM EDTA, 1 mM DTT

QC Tests

Activity, exo and endonuclease activity test, SDS-PAGE purity, performance tests.



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