

For research use only ISO9001

## dCas9

Product	Quantity	Cat. No.	Remarks	
dCas9	50 μg	EBT-5013	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 will lead to a specific cleavage of target sequence in cells. dCas9, two points mutant (D10A and H840A) of wild-type Cas9 nuclease, is a catalytically inactive form of Cas9 and has a simple DNA binding activity. dCas9 contains a single nuclear localization sequence (NLS) at the C-terminus of the protein.

dCas9 NLS is an optimized recombinant enzyme, which is expressed and purified from *E.coli* strain as a 6xHis-tagged form at the N-terminal end.

### **Applications**

- Genome editing

### Reagents Supplied & Storage Condition

- dCas9 : 0.5 μg/μl, Store at -20°C.
- 10x Cas9 Reaction Buffer: Store at 4°C.

### Storage Buffer

10 mM Tris-HCI (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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