

SpCas9 D10A Nickase

#CAS-EE111

Product Component	Sizes
SpCas9 D10A Nickase (10mg/mL)	100µg / 1mg

Storage/Transport Transport on dry ice. Store at -20 ±5°C. Avoid repeated freezing and thawing.

Form Liquid

Source *E. coli* with the Cas9 mutant (D10A) gene from *Streptococcus pyogenes*.

Storage Buffer 30 mM Tris-HCl, 300 mM NaCl, 0.1 mM EDTA, 1 mM DTT, 50% Glycerol, pH 7.4

Product Description

Recombinant SpCas9 D10A Nickase, from *Streptococcus pyogenes*, a mutant version of Cas9, Cas9 nickase (Cas9n), generates single-strand nicks in DNA. Paired nickases, which effectively create DSBs by generating two single-strand breaks a short distance apart at a targeted site, have been introduced to reduce such off-target activity.

Quality Control

Assay	Criteria
Purity (Bis-Tris Page)	≥ 95%
Purity (SEC-HPLC)	≥ 95%
Purity (RP-HPLC)	≥ 95%
Endotoxin	≤10 EU/mg

Product Validation

Figure 1. The purity of Recombinant SpCas9 D10A Nickase detected by Bis-Tris PAGE is greater than 95%.

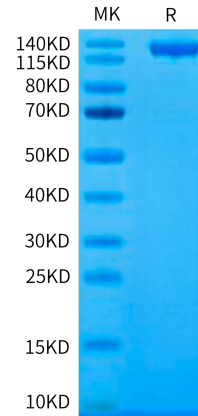


Figure 2. The purity of SpCas9 D10A Nickase detected by SEC-HPLC is greater than 95%.

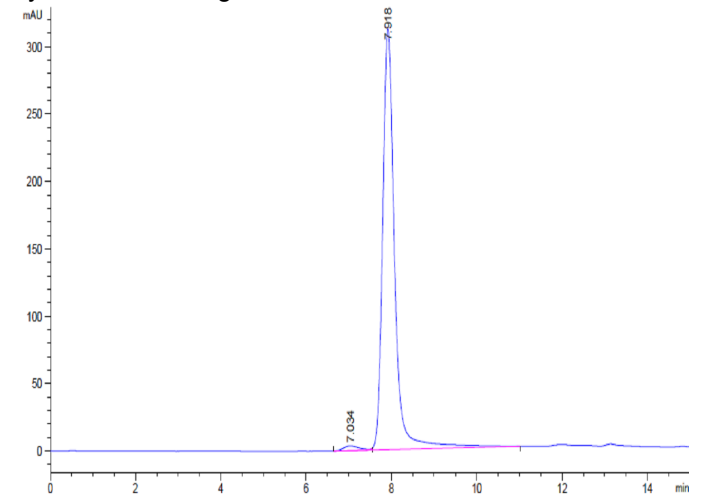


Figure 3. The *in vitro* cleavage activity data show that SpCas9 D10A Nickase can target and cleave more than 95% of the substrates.

sgRNA	-	-	50nM	50nM	50nM	50nM
SpCas9 D10A Nickase	+	80ng	60ng	40ng	20ng	

