Cas9 Nuclease NLS Enzyme

Cas9 Nuclease NLS Protein

CATALOG #
AAA214188

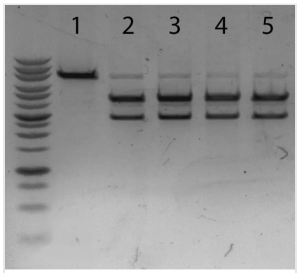
PRODUCT SYNONYMS

Cas9 Nuclease NLS; Cas9 Nuclease NLS Protein; Cas9 Nuclease NLS enzyme

PRODUCT SPECIFICATIONS

Storage Buffer	10 mM Tris-HCl (pH 7.4), 0.1 mM EDTA, 1 mM DTT, 300 mM NaCl, and 50% (v/v) Glycerol.
Preparation and Storage	Store all components at -20 degree C.

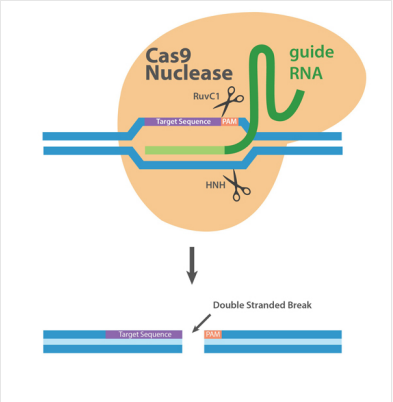
IMAGES



In vitro cleavage assay comparison using Cas9 Nuclease NLS protein

1. DNA + abm's Cas9 (no sgRNA)
2. DNA + abm's Cas9 + sgRNA, 30 min
3. DNA + Competitor N's Cas9 + sgRNA, 30 min
4. DNA + abm's Cas9 + sgRNA, 1 hour
5. DNA + Competitor N's Cas9 + sgRNA, 1 hour

Application Data



Application Data

ADDITIONAL INFORMATION

Related Product Information for Cas9 Nuclease NLS enzyme	The Clustered Regularly Interspaced Short Palindromic Repeats (CRISPR) /Cas9 system is the latest RNA-guided, endonuclease tool in genome editing which allows for very specific genomic disruption and replacement. The Cas9 nuclease serves to unwind the genomic DNA duplex next to conserved protospacer adjacent motifs (PAMs) and homes in on its target sequence, which is recognized by a complementary single-guide RNA. The resulting double-stranded break gets repaired by the non-homologous end joining (NHEJ) pathway, leading to a disruption in the open reading frame of the targeted gene. Alternatively, by supplying a suitable repair template, virtually any desired point mutation can be introduced at the break point via homology-directed repair (HDR). The Cas9 nuclease from the bacteria Streptococcus pyogenes, abbreviated spCas9, is the most commonly used Cas9 variant. The reason for spCas9 popularity is two-fold. First the spCas9 PAM sequence is 5'-NGG, which is highly abundant in the genome allowing virtually any gene to be targeted. The spCas9 enzyme also has on average a higher efficiency in vivo compared to other variants. Cas9 Nuclease NLS contains a SV40 T antigen nuclear localization sequence (NLS) on the C-terminus of the protein.

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: https://stage.aaabiotech.com/enzyme/cas9-nuclease-nls/214188