

AsCas12a (CRISPR-associated nuclease *Acidaminococcus sp.* Cas12a)

#CAS-EE121

Product Component	Sizes
AsCas12a Nuclease (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 Cas12a gene from *Acidaminococcus sp.* (strain BV3L6)

Storage Buffer 20 mM Tris-HCl, 300 mM NaCl, 0.1 mM EDTA, 1 mM DTT, 50% Glycerol, pH 7.4

Product Description

CRISPR-associated nuclease *Acidaminococcus sp.* Cas12a, also known as AsCpf1, can recognize and cleave DNA sequences with a T-rich protospacer adjacent motif (T-PAM), making it a useful tool for genome editing in regions where the NGG PAM sequence is not present. Different from Cas9, AsCas12a leaves sticky ends with 5' overhangs after the cleavage of both DNA strands, which provides a powerful tool for genetic engineering and other applications that require precise and specific DNA cleavage and editing.

Quality Control

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

Product Validation

Figure 1. The purity of Recombinant Cas12a detected by Bis-Tris PAGE is greater than 95%.

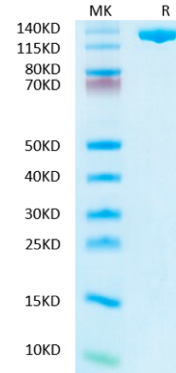


Figure 2. The purity of Cas12aNuclease detected by SEC-HPLC is greater than 95%.

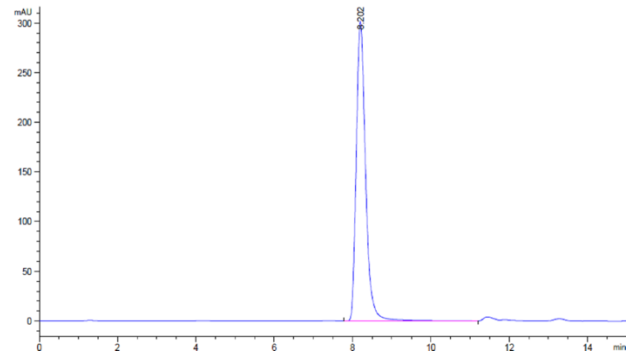


Figure 3. The *in vitro* cleavage activity data show that Cas12a Nuclease can target and cleave more than 95% of the substrates.

