Creative Enzymes
Diagnostic Enzymes

Cas14a CRISPR Nuclease

Product Information

Cat#	CAS-1401
Source	E. coli
Description	Un1Cas12f1 (also known as Cas14a) is a DNA endonuclease mediated by both crRNA and tracrRNA (or by the fused sgRNA alone). It specifically binds to and cleaves target ssDNA, unrestricted by PAM sites. Furthermore, Un1Cas12f1 can also specifically cleave target dsDNA in a PAM-dependent manner, causing double-strand breaks and generating sticky ends. Similar to other Cas12 proteins, Un1Cas12f1 also possesses trans-cleavage activity against ssDNA (i.e., bypass cleavage activity/accessory cleavage activity). Both double-stranded and single-stranded DNA targets can activate the trans-cleavage activity of Un1Cas12f1. That is, when Un1Cas12f1 binds to sgRNA and target DNA to form a ternary complex, it is activated to trans-cleave non-specific ssDNA sequences, cleaving any sequence of ssDNA in the system. Compared to other Cas proteins, Cas12f1 proteins generally have a smaller molecular weight (400~700 AA), with Un1Cas12f1 having a molecular weight of approximately 61.5 kD, making it suitable for molecular detection of target nucleic acids.
Storage	Store at -20°C
Abbr	Cas14a
Applications	Gene editing.
Appearance	Liquid
Molecular Weight	64.9 kDa
Concentration	10 μM
Grade	Research Grade
Composition	Cas14a1 Nuclease 10 × HOLMES Buffer

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