



## Cas14a (Cas12f1)

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Cas14a is a very small Cas protein, about half that of other Cas proteins. Cas14a can recognize and cleave the target ssDNA, and also has co-cleavage activity. It can be used for the detection of ssDNA. Cas14 enables high-fidelity SNP genotyping. Since the recognition of DNA molecules does not depend on the PAM site, Cas14 has extremely strict requirements for the accuracy of the recognition sequence, and the mismatch of a single base will seriously inhibit its cleavage activity.

Cas14a is an endonuclease that specifically binds to and cleaves target ssDNA under the guidance of tracrRNA:crRNA (or sgRNA) without the need for a PAM site. Unlike Cas12, Cas14a can only bind to ssDNA targets, so the amplified and enriched target nucleic acids need to be treated with T7 exonuclease, and one of the amplification primers needs to be modified with phosphosulfonylation to ensure that only one strand of T7 exonuclease is cleaved, leaving the ssDNA target strand for Cas14a-mediated molecular detection.

### Material Supplied:

- 1) Lbu Cas131 protein
- 2) Reaction Buffer [10x]
- 3) Diluent Buffer [1x]

Catalog No.	518019
Size	200 pmol / 2,000 pmol
Product Category	Isothermal Amplification
Storage/Stability	-20°C/1 year
Shipping	Gel Packs