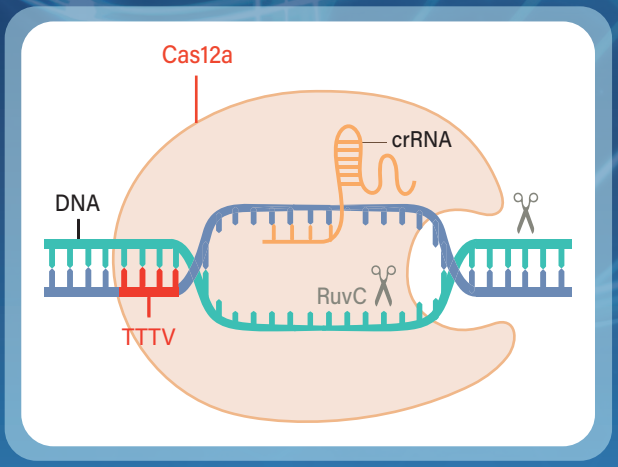
Cas12a CRISPR mRNA
Unlock T-Rich Targets Beyond Cas9

Staggered DNA cleavage for precise and flexible genome editing



Cas12a (Cpf1) is a powerful CRISPR nuclease distinguished by its T-rich PAM recognition (5'-TTTV-3') and staggered DNA cleavage, enabling access to genomic regions beyond Cas9 and facilitating more precise gene insertion via sticky-end repair. Croyez Cas12a mRNA is available in both unmodified and m1Ψ-modified formats to support different stages of CRISPR research. The unmodified version is ideal for early-stage screening and proof-of-concept studies, offering rapid expression and cost efficiency. For applications requiring enhanced stability and reduced innate immune activation, the m1Ψ-modified Cas12a mRNA delivers improved translation efficiency and robust expression across diverse cell types.

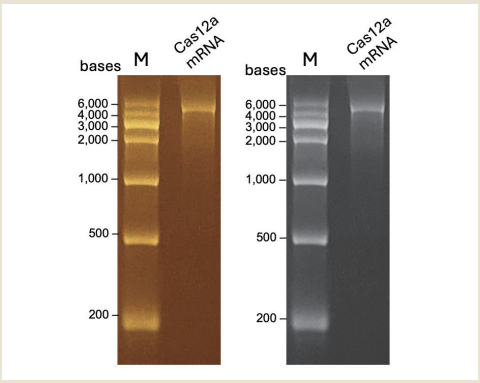


Figure 1. Cas12a mRNA (unmodified) was analyzed on a 1% E-Gel.Lane 1: Marker,RNA ladder (cat no: CR00004)

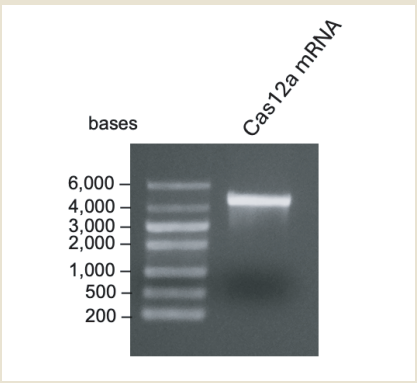


Figure 2. Cas12a mRNA (unmodified) was analyzed on a 1% TAE agarose gel at 100 V for 30 minutes. Lane 1: Marker,RNA ladder (cat no: CR00004).

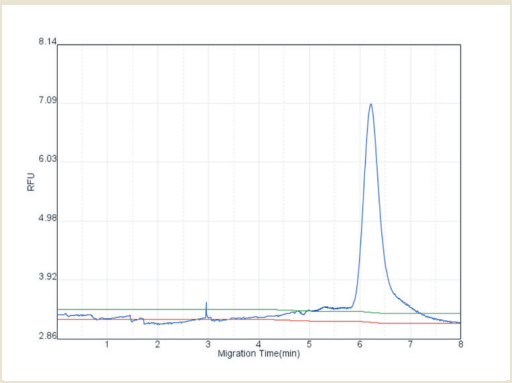


Figure 3. Capillary Electrophoresis : Cas12a mRNA (unmodified) was analyzed by capillary electrophoresis.

Cas12a vs Cas9

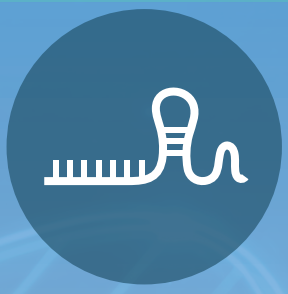
T-rich PAM (TTTV)

Targets AT-rich regions inaccessible to Cas9

Staggered DNA Cleavage

Sticky ends enable precise gene insertion

Single crRNA Design



Simplified multiplex genome editing

Cas9 Alternative

Expanded targeting flexibility

Cat#	Product	Package
CR00043	Cas12a mRNA (unmodified)	100 µg / 1 mg
CR00044	Cas12a mRNA (m1ψ substitution)	100 µg / 1 mg

For ordering information, technical support, or custom mRNA services, please contact Croyez Bioscience.

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