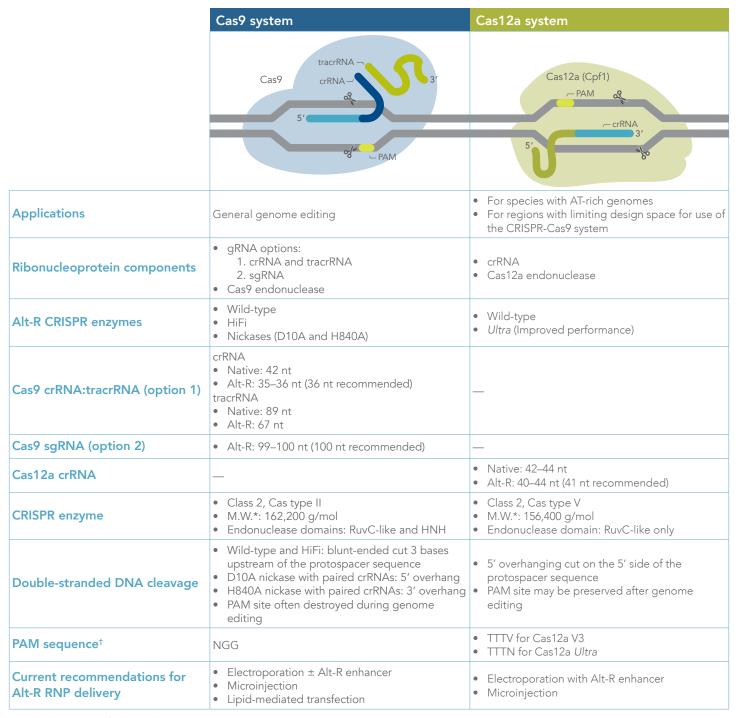
genome editing

Comparison of Alt-R S.p. Cas9 nuclease with its variants

	Alt-R S.p. Cas9 Nuclease	Alt-R S.p. HiFi Cas9 Nuclease	Alt-R S.p. Cas9 D10A Nickase	Alt-R S.p. Cas9 H840A Nickase
	Cas9 tracrRNA————————————————————————————————————	Cas9 crRNA— CRNA— Q 5' PAM	Cas9 crRNA————————————————————————————————————	Cas9 crRNA — 3'
Description	Wild-type Cas9 with high genome editing potency that is simple to use and economical	Cas9 variant with improved specificity based on reduced off-target effects, while preserving high on- target activity	Cas9 variant with a mutation in the RuvC domain that disables cleavage of the non-target strand	Cas9 variant with a mutation in the HNH domain that disables cleavage of the target strand
DNA cleavage	Both strands	Both strands	Target strand	Non-target strand
Suggested use	First choice for most CRISPR genome editing projects	Ideal for experiments that are sensitive to off-target events and require a high level of editing efficiency	May be beneficial for homology-directed repair (HDR) experiments, but requires two suitable cutting sites within an optimal distance of each other	
Molecular weight	162,200 g/mol			
Amount provided	100 µg or 500 µg			
Concentration	10 mg/mL (62 μM) in 50% glycerol			
Shipping conditions	Dry ice			
Storage conditions	–20°C at stock concentration			
Dilution	Dilute in Opti-MEM® medium (Thermo Fisher) or PBS before use			

Discover more at www.idtdna.com/CRISPR-Cas9

Comparison of CRISPR genome editing using Cas9 vs. Cas12a (Cpf1)



^{*} Molecular weight of Alt-R nuclease

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 $[\]dagger N = \text{any base}; V = A, C, \text{ or } G$