

Alt-R™ CRISPR enzymes

A one-stop shop for all your CRISPR research enzyme needs



More editing options
from multiple Cas systems



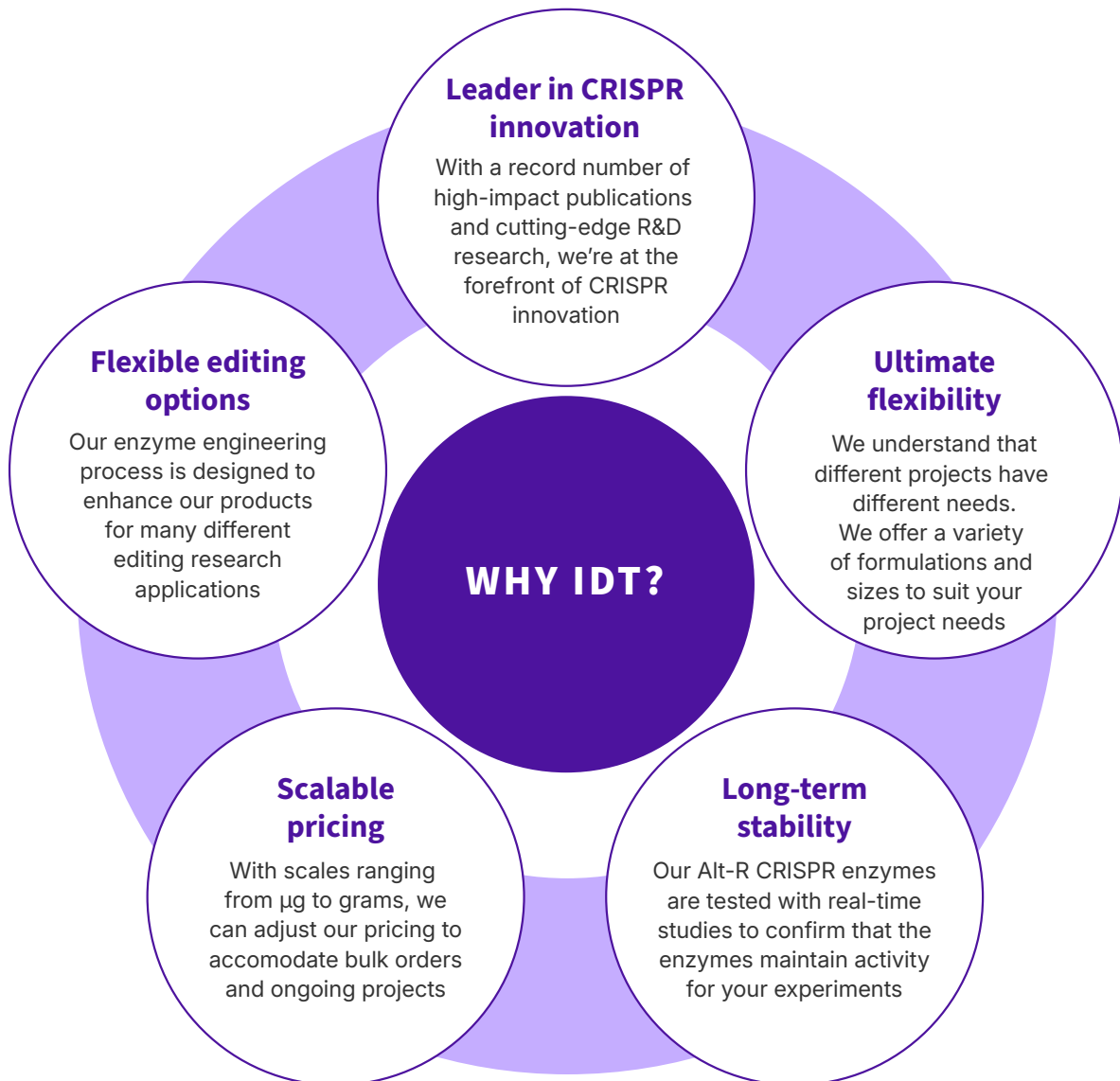
Flexible sizing
& formulations



Complete CRISPR
workflow solutions

A variety of cas proteins for genome editing research applications

Our Alt-R Cas enzymes are designed to improve on-target CRISPR editing and are available in a variety of formats to fit your project needs. From the widely adopted *S. pyogenes* Cas9 to our proprietary engineered mutants, we're sure to have the perfect option for your next gene editing venture.



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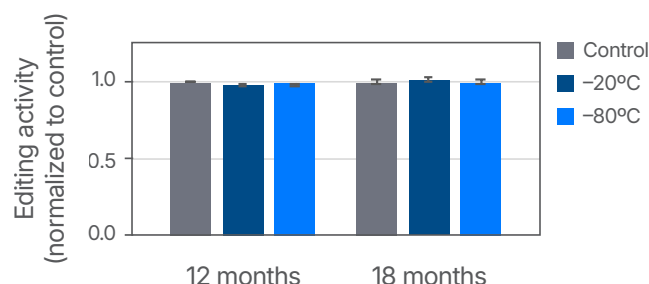
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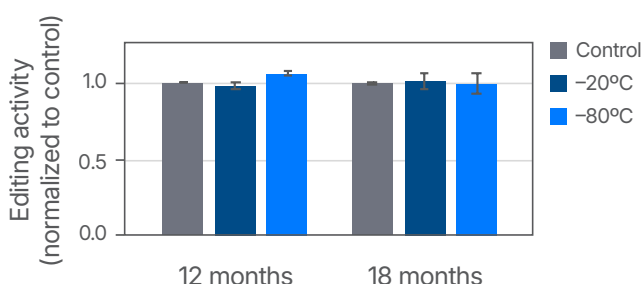
Long-term storage stability

Our Alt-R Cas enzymes were put to the test to demonstrate their resiliency over time, despite repeated freeze-thaw cycles.

A. Wild-type *S.p.* Cas9 stability, stock storage buffer shelf life



B. Wild-type *S.p.* Cas9 stability, RNP complex shelf life



C. Wild-type *S.p.* Cas9 stability, stock storage buffer freeze/thaw stability

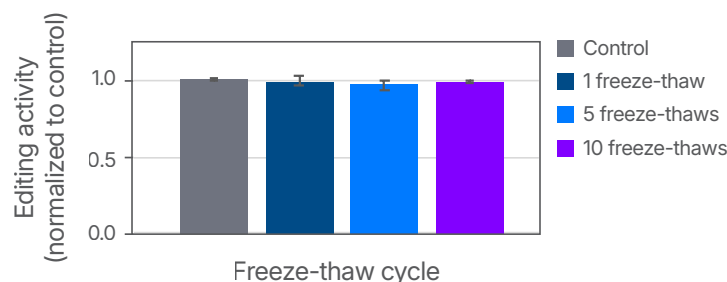


Figure 1. Alt-R CRISPR enzymes are stable and retain performance throughout a variety of storage conditions.

The Alt-R *S.p.* Cas9 Nuclease V3 maintains editing efficiency when stored in a variety of conditions. These proteins can be stored either as a standalone solution in the stock buffer provided (A) or as part of an RNP complex when coupled with our Alt-R CRISPR-Cas9 guide RNAs (B). These reagents can also be stored at 4°C for up to 1 month (data not shown). When stored as a stand-alone solution, the Alt-R enzymes can withstand up to 10 freeze-thaw cycles with negligible impact on performance (C).

(A), (B), (C) HEK293 cells were electroporated with 2 μ M Cas9 RNP complexes and 3 μ M Alt-R Cas9 Electroporation Enhancer using the Lonza Nucleofector™ system. Guide RNAs were designed to target HPRT38087 (A,B) or HPRT 38285 (C) loci. After electroporation, cells were plated in media and genomic DNA was isolated 48 hours later. Editing was assessed using a T7EI assay, and data were normalized to a matched control lot (N=1/test) at each time point. N=3 technical replicates were performed for all conditions in all panels.

Available Formats

Our Alt-R CRISPR enzymes are available in a variety of formats, with stock sizing available up to 50 mg. Larger formats and lot matching are also available for all products upon request.

Cas protein	Available versions	Key features
<i>S.p.</i> Cas9 Nuclease V3	Wild-type, 50% Glycerol	Targeting GC-rich regions
	Wild-type, Glycerol-free	Low viscosity for high-throughput applications
	High Fidelity (HiFi)	Reduced off-target activity*
	Wild-type Fluorescent-fusion	Fluorescent label for enrichment (GFP or RFP)
A.s. Cas12a (Cpf1) V3	Wild-type <i>Ultra</i>	Targeting AT-rich regions Increased on-target activity*
<i>L.b.</i> Cas12a (Cpf1)	<i>Ultra</i>	Increased on-target activity and low-temperature tolerance*

* When compared to corresponding Wild-type controls.

Don't see what you need? Contact us to learn more about our custom protein capabilities.

For more information, contact us at CRISPR@idtdna.com



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