

GENE-EDITING & CRISPR

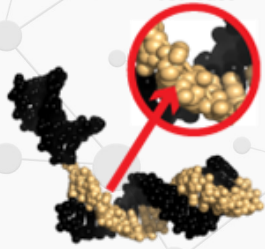
At Intact Genomics, we believe in the power of unlocking nature's code for the betterment of humanity. Intact Genomics is proud to introduce a high quality product line for Gene-Editing. As part of our on-going mission, we are bringing you the very best and most innovative biotechnologies, today. From Cas enzymes to Prime-Editing kits, researchers can find the best tools to maximize their genome-editing experiments from Intact Genomics.

sgRNA Synthesis Kits

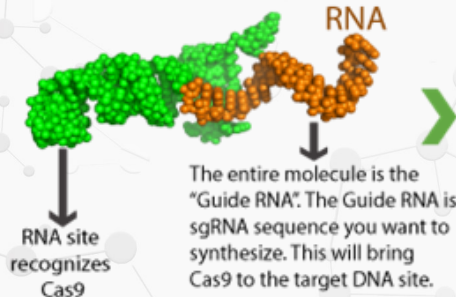
3 STEP GUIDE TO IN VITRO GENE EDITING

1.) Identify your target gene

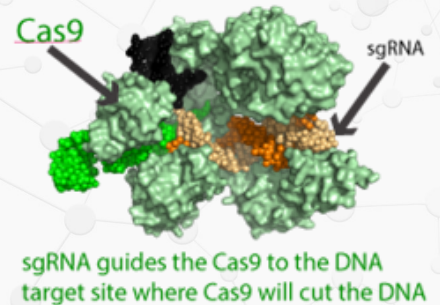
Target DNA Sequence for Cas9



2.) Use IG sgRNA synthesis kit for guiding Cas9 to your gene.



3.) Following the 2nd step, your IG Cas9a enzyme and your sgRNA are now ready to make an RNP Complex



| Product Name | Cat # | Package Size |
|---|-------|-----------------|
| sgRNA Synthesis Kit for Cas9 Nuclease | 3203 | 10 rxns, 20 µl |
| | 3206 | 10 rxns, 100 µl |
| sgRNA Synthesis Kit for Cas12a Nuclease | 3303 | 10 rxns, 20 µl |
| | 3306 | 10 rxns, 100 µl |
| Cas9 | 3273 | 80 µg |
| | 3276 | 400 µg |
| Cas12a | 3273 | 80 µg |
| | 3276 | 400 µg |
| RNA Cleanup Kit | 4003 | 25 preps |
| | 4005 | 100 preps |
| T7 RNA Polymerase | 3292 | 5,000 units |
| | 3296 | 25,000 units |



Introducing the first commercially available PEmax Enzyme and PE pegRNA Synthesis Kit on the market. The IG® PEmax Enzyme and PE pegRNA Synthesis Kit provide excellent quality, reliability, and ease of use.

PEmax™ System Feature & Benefits

- Wide variety of genetic editing possibilities
- Specific DNA/RNA targeting
- Precision gene therapy research
- Up to 20x more efficient than previous methods
- Targeted DNA insertions

| Product Name | Cat # | Package Size |
|-------------------------|-------|----------------------------------|
| PEmax Enzyme | 3473 | 80 µg |
| | 3476 | 400 µg |
| PE pegRNA Synthesis Kit | 3404 | 10 Reactions (20 µl rxn volume) |
| | 3406 | 10 Reactions (100 µl rxn volume) |

PEmax and Prime-Editing, a quick over-view:

PEmax is purified recombinant *Streptococcus pyogenes* Cas9 nickase mutant (H840A)-MMLV-Reverse Transcriptase fusion protein containing a NLS. The fusion enzyme nicks targeted DNA/RNA and directs a mutation at a specific site guided by the pegRNA. RT uses the system to deliver replacement DNA sequence. Researchers can customize the pegRNA to target specific DNA sequences to meet their specific needs. For a more in-depth and technical explanation, please see our website.

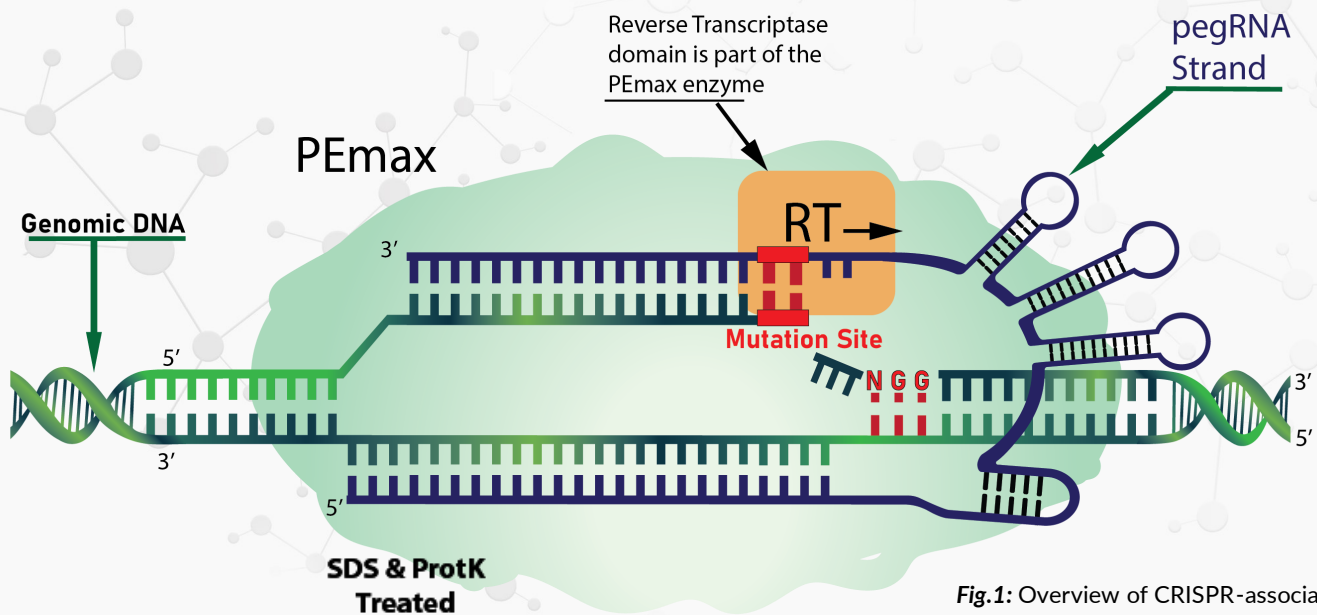
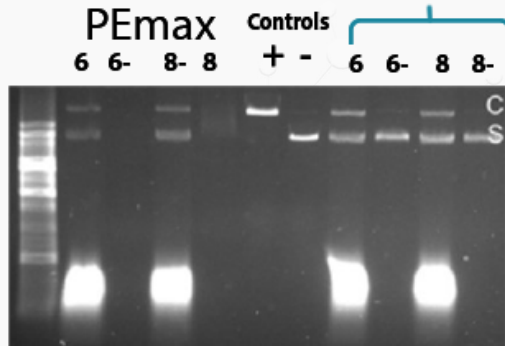


Fig.1: Overview of CRISPR-associated (Cas) system showing a representative prime-editing enzyme oriented with target genomic DNA and pegRNA.



Functional Testing

Fig.2: We have demonstrated that PEmax has specific nicking activity in the presence of an in vitro transcription-synthesized guide pegRNA and has in vitro RT activity*.

*RT data is not shown in this figure.