

#### **Features**

High cleavage activity in different cell line High purity (>95% SDS-PAGE / SEC-MALS)

Animal-Free materials

Batch-to-batch consistency

Stringent quality control tests

## **Product Details**

GENPower<sup>TM</sup> NLS-Cas9 Nuclease is a recombinant Streptococcus pyogenes Cas9 protein purified from Escherichia coli for CRISPR-based genome editing. The introduction of nuclear localization signals (NLS) can help Cas9 enter the nucleus, increasing the chance of genomic DNA cleavage.

### Concentration

10 mg/mL

# **Purity**

- >95% as determined by SDS-PAGE.
- >95% as determined by SEC-MALS.

#### **Host Cell Protein**

≤10 ng/mg of protein tested by ELISA.

#### **Host Cell DNA**

 $\leq$ 1 ng/mg of protein tested by qPCR.

## **Sterility**

Negative

## Mycoplasma

Negative.

## **Endotoxin**

Less than 0.01 EU per μg by the LAL method.

#### **Formulation**

Supplied as 0.2 µm filtered solution in 20 mM Tris, 300 mM NaCl, 0.1 mM EDTA, pH7.5 with glycerol as protectant.

Contact us for customized product form or formulation.

## **Shipping**

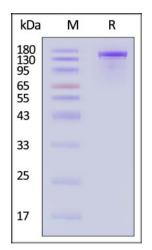
This product is supplied and shipped with dry ice, please inquire the shipping cost.

## Storage

This product is stable after storage at:

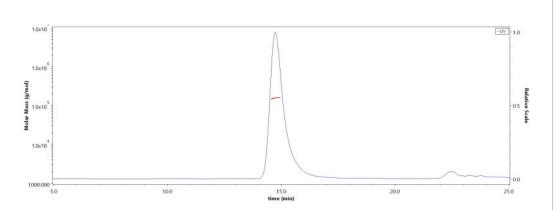
- The product MUST be stored at -20°C or lower upon receipt;
- -20°C for 18 months under sterile conditions.

## **SDS-PAGE**



The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With Star Ribbon Pre-stained Protein Marker).

## **SEC-MALS**

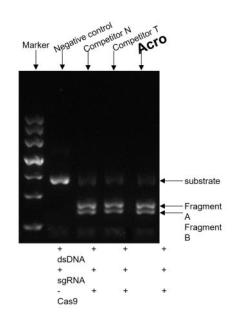


The purity of GENPower<sup>TM</sup> NLS-Cas9 Nuclease, premium grade (Cat. No. CA9-S5149) is more than 95% and the molecular weight of this protein is around 140-180 kDa verified by SEC-MALS. Report

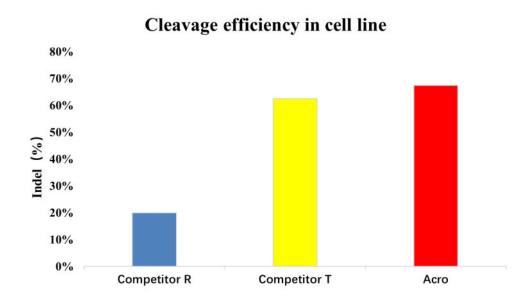
## **Bioactivity**



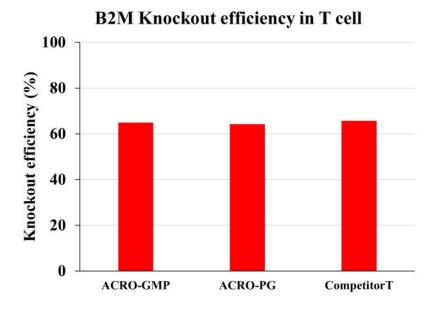




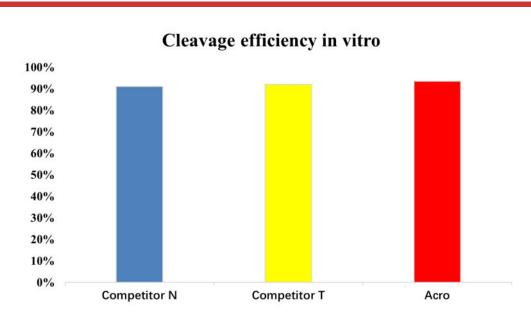
GENPower<sup>TM</sup> NLS-Cas9 Nuclease, premium grade is evaluated in an in vitro DNA cleavage assay on a DNA fragment containing the target sequence. The activity of the GENPower<sup>TM</sup> NLS-Cas9 Nuclease, premium grade is greater than 90% (QC tested).



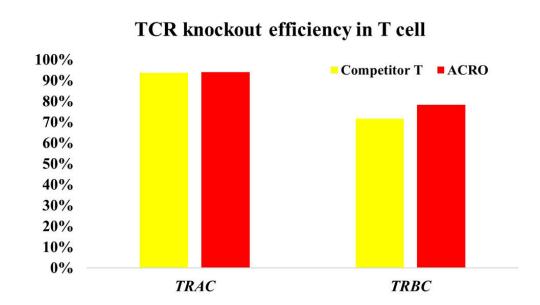
The cleavage activity of GENPower<sup>TM</sup> NLS-Cas9 Nuclease, premium grade in cell line.



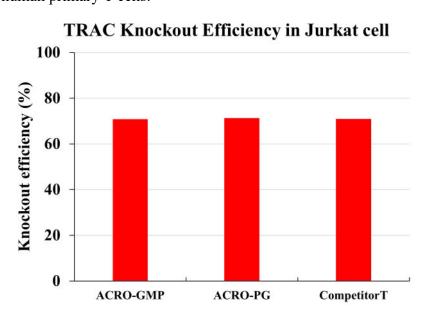
The knockout efficiency for B2M in primary T cell was measured by Flow Cytometry.



The cleavage activity of GENPower™ NLS-Cas9 Nuclease, premium grade in vitro.

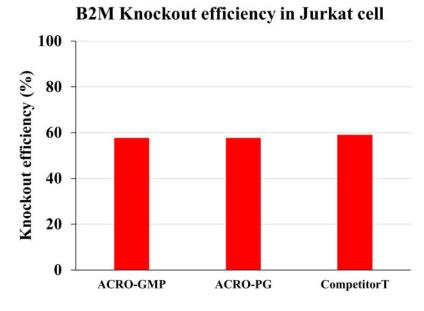


The cleavage activity of GENPower<sup>TM</sup> NLS-Cas9 Nuclease, premium grade in human primary T cells.



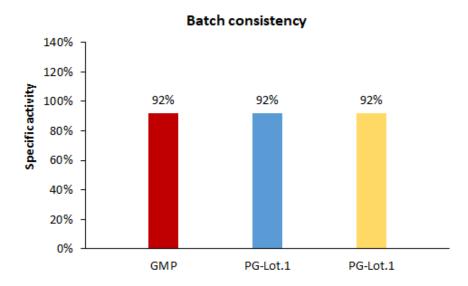
The knockout efficiency for TRAC in Jurkat cell was measured by Flow Cytometry.





The knockout efficiency for B2M in Jurkat cell was measured by Flow Cytometry.

# **Bioactivity-Stability**



The bioactivity based assay shows batch-to-batch consistency between Acro's GMP and PG Cas9.

# **Clinical and Translational Updates**

