

AsCas12a recombinant protein

AsCas12a, Active

CATALOG #
AAA73386

HOST
E Coli

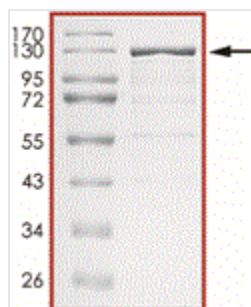
PRODUCT SYNONYMS

AsCas12a; Active; Cpf1; AsCpf1; CRISPR-associated endonuclease Cpf1; AsCas12a recombinant protein

PRODUCT SPECIFICATIONS

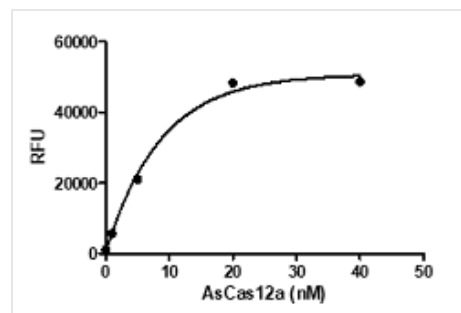
Host	E Coli
Form/Format	Recombinant protein stored in 50mM sodium phosphate, pH7.5, 300mM NaCl, 150mM imidazole, 1mM DTT and 10% glycerol.
Tag	HIS
Species	Acidaminococcus
Dry Ice Note	The product may be shipped with dry ice, and an additional fee may be added to your shipping cost.
Preparation and Storage	Store product at -70 degree C. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles.

IMAGES



SDS-PAGE

Purity: Sample Purity Data. For specific information on a given lot, see related technical data sheet.



Activity

Activity: Sample Activity Plot. For specific information on a given lot, see related technical data sheet

ADDITIONAL INFORMATION

Related Product Information for AsCas12a recombinant protein

Recombinant Acidaminococcus AsCas12a was expressed in E Coli with a C-terminal His tag. The protein accession number is WP_021736722.

CRISPR (clustered regularly interspaced short palindromic repeat) and their CRISPR-associated (Cas) proteins constitute the adaptive immune system in bacteria (1-2). This system has been redesigned to create an exemplary genome editing tool for application to RNA-based therapeutics development (3). AsCas12a is a CRISPR-associated endonuclease from Acidaminococcus and it can be engineered to achieve combinatorial genetic screening with high efficiency (2). Engineered AsCas12a further enables accurate editing in hematopoietic stem cells, induced pluripotent stem (iPS) cells, and natural killer (NK) cells and helps fight against sickle cell disease (4).

Product Categories/Family for AsCas12a recombinant protein

[CRISPR Associated Proteins](#)

References

1. Horvath, P., et al. CRISPR/Cas, the immune system of bacteria and archaea. Science, 327(5962):167-170.
2. Morange, M. What history tells us XXXVII. CRISPR-Cas: The discovery of an immune system in prokaryotes. J. Biosci. 40(2):221-223.
3. Gier, R.A., et al. High-performance CRISPR-Cas12a genome editing for combinatorial genetic screening. Nat. Commun. 2020, 11(1):1-9.
4. DeLong, R. Ushering in a new era of RNA-based therapies. Commun Biol. 2021. doi: <https://doi.org/10.1038/s42003-021-02150-w>

NCBI AND UNIPROT INFORMATION

Molecular Weight

130kDa

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/ascas12a-recombinant-protein-e-coli/73386>