

ChIC/CUT&RUN pAG-MNase Recombinant Protein

ChIC/CUT&RUN pAG-MNase

CATALOG #
AAA13601

HOST
E Coli

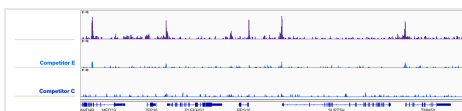
PRODUCT SYNONYMS

ChIC/CUT&RUN pAG-MNase; ChIC/CUT&RUN pAG-MNase recombinant protein

PRODUCT SPECIFICATIONS

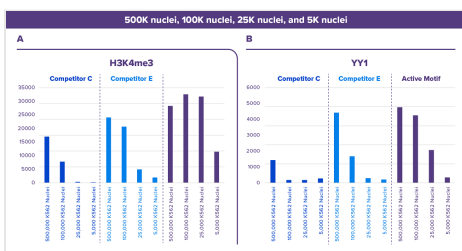
Host	E Coli
Application Notes	Recombinant pAG-MNase protein is used for ChIC/CUT&RUN assays. Use 2.5 μ L per CUT&RUN reaction.
Additive	Glycerol
Preparation and Storage	Recombinant proteins in solution are temperature sensitive and must be stored at -20°C to prevent degradation. Avoid repeated freeze/thaw cycles and keep on ice when not in storage.

IMAGES



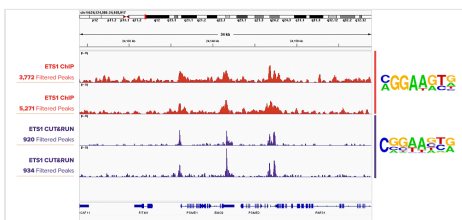
Application Data

Figure 6. CUT&RUN Assay Kit is Compatible with 25,000 Nuclei for Transcription Factors. 25,000 fresh K562 nuclei were assayed using Active Motif's CUT&RUN Assay Kit or Competitor E or Competitor C CUT&RUN Assay Kits using Active Motif's YY1 antibody. CUT&RUN Assay Kit yielded more robust results than the competition.



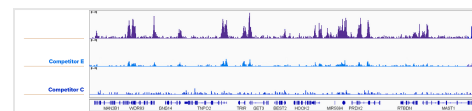
Application Data

Figure 4. CUT&RUN Assay Kit Outperforms the Competition. Peak scores are plotted in the bar graphs for 500,000, 100,000, 25,000, and 5,000 K562 nuclei assayed in CUT&RUN Kits from either Active Motif, Competitor C, and Competitor E for YY1 and H3K4me3



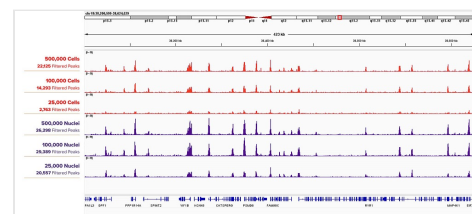
Application Data

Figure 2. ETS1 CUT&RUN Peak Profiles Are Similar to ETS1 ChIP-Seq Profiles. IGB browser tracks for ChIP-Seq (top two tracks) in DIPTG cells and CUT&RUN (bottom two tracks) in K562 cells assays targeting ETS1. Sequence logos from Homer analysis (to the right of the tracks) show motif enrichment for the ETS1 motif in both sample sets.



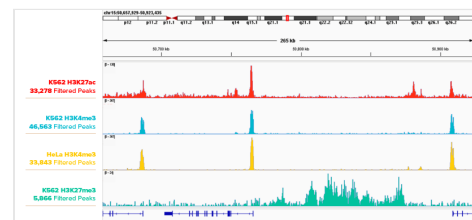
Application Data

Figure 5. CUT&RUN Assay Kit is Compatible with 5,000 Nuclei for Histone Marks. 5,000 fresh K562 nuclei were assayed using Active Motif's CUT&RUN Assay Kit or Competitor E or Competitor C CUT&RUN Assay Kits using H3K4me3 antibody. CUT&RUN Assay Kit yielded more robust results than the competition.



Application Data

Figure 3. CUT&RUN H3K4me3 Assay Results Comparing Titrations of K562 Cells versus Nuclei. 500,000, 100,000, 25,000 K562 Cells (top three tracks) or Nuclei (bottom three tracks) were assayed in CUT&RUN with Active Motif's H3K4me3 antibody. Filtered Peaks remain higher at lower input for nuclei than cells, and the browser tracks for nuclei show stronger peaks for each input amount when compared to cells.



Application Data

Figure 1. CUT&RUN Profiling Histone Marks in K562 Cells. IGB browser tracks are shown for 500,000 K562 cell CUT&RUN peaks with antibodies H3K27ac, H3K4me3 and H3K27me3

ADDITIONAL INFORMATION

Related Product Information for ChIC/CUT&RUN pAG-MNase recombinant protein	Recombinant pAG-MNase is provided in 2 vials of 63 µL at a concentration of 14 µg/ml in 25 mM Tris, pH 7.5, 150 mM NaCl, and 50% glycerol. Recombinant pAG-MNase protein that includes amino acids 94-242 of Staphylococcus aureus MNase protein (accession number 1109959A) was expressed in E. coli cells with an N-terminal protein A-protein G and a C-terminal 6×His tag. The protein A-protein G fusion tag is used to recognize and bind to IgG. The molecular weight of the protein is 42.98 kDa. MNase (Micrococcal Nuclease) derived from Staphylococcus aureus , has both endonuclease and exonuclease activities. The linker DNA between nucleosomes is 25 times more sensitive to MNase than nucleosomal DNA. According to this characteristic of the enzyme, after fully digesting the chromatin DNA, most of the naked DNA between the nucleosomes will be digested, thus enriching the mononucleosomal DNA fragments. Micrococcal nuclease was used to cut chromatin fibers and DNA was recovered combined with next-generation sequencing technology was used to map nucleosome positioning, which is called MNase-seq. The application of MNase-seq people have accelerated the research on nucleosome organization and chromatin structure, and it is expected to have a deeper understanding of gene regulation patterns and chromatin function.
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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/chic/cut-run-pag-mnase-recombinant-protein-e-coli/13601>