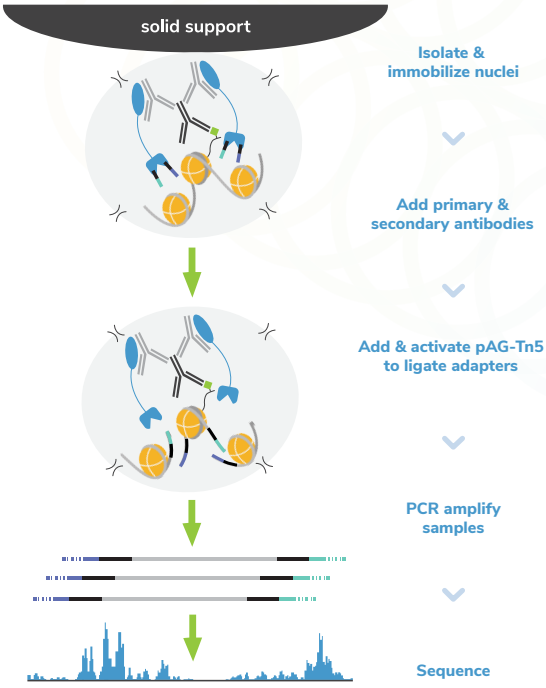
# CUTANA™ CUT&Tag Assays for chromatin mapping with low cell numbers

Cleavage Under Targets and Tagmentation (CUT&Tag) is an ultra-sensitive chromatin mapping technology that is ideal for histone post-translational modifications (PTMs) and select transcription factors (TFs).

How does CUT&Tag compare to ChIP-seq?

- Streamlined - no fragmentation, IP, or library prep
- High signal-to-noise and low background
- Fewer cells needed
- Rapid 2-day workflow
- Reduced sequencing costs




## Reliable data at low cell numbers

| FEATURES | ChIP-seq | CUT&RUN | CUT&Tag |
|---|---|---|---|
| Cells Required | >1 million | 5,000 - 500,000 | 1,000 - 100,000 |
| Compatible Targets | Histone PTMs, TFs | Histone PTMs, TFs & Chromatin Remodelers | Histone PTMs & Select TFs |
| Sequencing Depth (Reads) | >30 Million | 3-8 Million | 3-8 Million |
| Signal-to-Noise | Low | High | High |

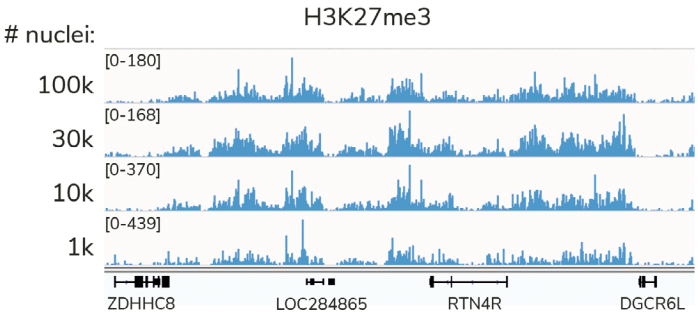



FIGURE 1 CUT&Tag was performed using an H3K27me3 antibody and decreasing amounts of K562 nuclei as input.

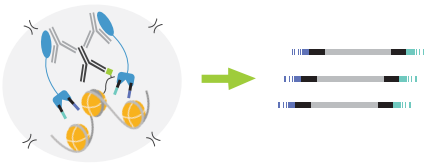
## Advantages of CUTANA™ CUT&Tag

- Reliable data down to 1,000 cells
- Exclusive single-tube workflow
- User-friendly protocol with FAQs and troubleshooting tips
- Spike-in controls available to maximize experimental success

EpiCypher®
Bringing Epigenetics to Life

# Go from cells to sequencing in just a few days

DAY 1-2

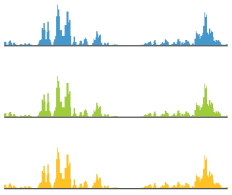


CUTANA™ CUT&Tag Assay / Direct-to-PCR Library Preparation

DAY 2-3

Next-Generation Sequencing

DAY 3



Data Analysis

## PROTOCOL

Learn more about EpiCypher's optimized CUTANA™ Direct-to-PCR CUT&Tag Protocol.

**CUTANA CUT&Tag Protocol**

### ADVANTAGES

- Cells to DNA in one tube
- Use as few as 1,000 cells
- Includes modifications for cells, nuclei, cross-linking, fresh and frozen samples
- Perform assay in <2 days
- Recommended for histone PTMs
- For chromatin-associated protein targets, contact info@epicypher.com for recommendations

## PRODUCTS

### Get started with our CUT&Tag Core Reagents Bundle

50 reactions / Cat. No. 14-1101
Includes the essential reagents and controls you need for CUT&Tag assays!

### ENZYMES & REAGENTS

**pAG-Tn5**
**50 / 250 reactions**
Cat. No. 15-1017
Cat. No. 15-1117

**ConA Conjugated Paramagnetic Beads**
**50 / 250 reactions**
Cat. No. 21-1401
Cat. No. 21-1411

**Non-Hot Start 2X PCR Master Mix**
**50 reactions**
Cat. No. 15-1018

### ANTIBODIES

**Rabbit IgG Negative Control**
Cat. No. 13-0042

**H3K4me3**
Cat. No. 13-0041

**Anti-Rabbit Secondary Antibody**
**50 / 250 reactions**
Cat. No. 13-0047
Cat. No. 13-1047

**Anti-Mouse Secondary Antibody**
**50 / 250 reactions**
Cat. No. 13-0048
Cat. No. 13-1048

### SPIKE-IN CONTROLS

**SNAP-CUTANA™ K-MetStat Panel**
Cat. No. 19-1002

### TOOLS

**8-strip 0.2 mL PCR Tubes**
**120 strips**
Cat. No. 10-0009

**0.2 mL Magnetic Separation Rack**
Cat. No. 10-0008

**1.5 mL Magnetic Separation Rack**
Cat. No. 10-0012

## RESOURCES

### PROTOCOLS

Vist epicypher.com/protocols for:

- CUT&Tag protocol
- SNAP-CUTANA™ Spike-in User Guide
- Cross-linking protocol
- Protocols are routinely updated!

### LITERATURE

- Single cell analysis - Kaya-Okur et *al. Nat. Comm.* 2019 (PMID : 31036827)
- Automated CUT&Tag - Janssens et *al. Nat. Genet.* 2021 (PMID : 34663924)
- Chromatin accessibility using CUT&Tag - Henikoff et *al. eLife.* 2020 (PMID : 33191916)

### BLOGS

Check out our recent CUT&Tag blogs at epicypher.com/resources/blog