

## ChIP-IT® ChIP-SEQ

## ChIP for Next-generation sequencing

The combination of ChIP with genome-wide analysis using Next-generation sequencing (ChIP-Seq) is a powerful approach that can provide insights into gene regulation, the impact of chromatin modifications on gene expression and signaling pathway mechanisms. Active Motif's ChIP-IT® ChIP-Seq Kit is designed to provide the highest quality ChIP-enriched DNA for use in sequencing on Illumina® Genome Analyzer II, HiSeq and MiSeq Next-generation sequencing systems.

ChIP-IT ChIP-Seq is robust enough for use with challenging antibodies that do not yield signal with other ChIP methods and sensitive enough to detect binding of low abundance transcription factors. The increased sensitivity is due to optimized ChIP buffers which reduce the presence of non-specific DNA, resulting in lower background and better enrichment. Better enrichment translates into larger ChIP-Seq peaks and more accurate peak calling, since a greater percentage of the sequence reads are mapped to binding sites rather than background DNA regions. To learn more, please visit us at [www.activemotif.com/chipitseq](http://www.activemotif.com/chipitseq).

## TECHNICAL SPECS

Recommended for use with:

- low abundance targets (e.g. TFs)
- low affinity antibodies

Sufficient reagents for:

- 16 chromatin preparations
- 16 chromatin IPs
- 10 sequencing libraries

Cell requirements: ≥ 1.5M cells / ChIP rxn

Recommended # cells for

chromatin preparation: ≥ 4.5M cells

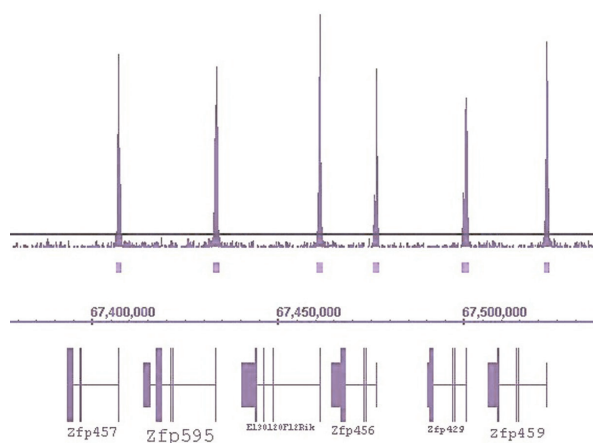
Capture method: Column filtration

IP method: Protein G agarose beads

Procedure length: 2 - 3 days

Compatible downstream applications:

- qPCR
- ChIP-chip
- ChIP-Seq



▲ FIGURE: ChIP-IT ChIP-Seq reveals that H3K4me3 peaks are present at the start site of all Zfp genes.

ChIP-IT ChIP-Seq was performed using a Histone H3K4me3 pAb (Catalog No. 39159) on mouse livers. The data shows the presence of H3K4me3 at the transcription start sites of several Zfp genes.

## WHAT'S IN THE BOX?

The ChIP-IT ChIP-Seq Kit contains the same robust chromatin IP components of the ChIP-IT High Sensitivity® Kit (see opposite page) along with other components necessary for preparation of samples for ChIP-Seq analysis. Included in the ChIP-IT ChIP-Seq Kit are:

- Optimized protocol & buffers to perform ChIP from fresh or frozen cells or tissues
- DNA purification reagents for clean-up of ChIP-enriched DNA
- ChIP-IT® qPCR Analysis Kit for the verification of quality of the DNA prior to sequencing
- Library construction reagents and protocol for the preparation of 10 NGS libraries

## ORDERING INFORMATION

Product	Format	Cat. No.
ChIP-IT® ChIP-Seq Kit	10 libraries	53041