

ChIP-IT HIGH SENSITIVITY®

Most sensitive transcription factor ChIP Kit available

The **ChIP-IT High Sensitivity® Kit's** specially formulated buffers enable highly efficient enrichment from low abundance targets, such as transcription factors, or from limited sample amounts or low affinity antibodies. During the immunoprecipitation reaction, low-background Protein G agarose beads and an antibody blocker reduce non-specific binding. Specialized ChIP buffers are designed to enhance enrichment and reduce the presence of non-specific DNA. In addition, ChIP filtration columns are used for faster, easier and more consistent capture and wash steps. The result is a kit that is optimized to deliver both higher signals and lower background when compared to other commercially available ChIP kits (**Figure 1**).

- ✓ Perform ChIP reactions on low abundance transcription factors (TFs), with limited sample material or using low-affinity antibodies (**Figure 2**)
- ✓ Enrich DNA from as little as 1,000 cells per IP reaction
- ✓ Validated across multiple sample types
- ✓ Proven performance in ChIP-Seq, ChIP-chip and qPCR

For more information, visit www.activemotif.com/chipiths.

TECHNICAL SPECS

Recommended for use with:

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

Cell requirements (# cells / ChIP rxn):

- high abundance target: ≥ 1K cells
- low abundance target: ≥ 50K cells

Recommended # cells for chromatin preparation: 100K cells

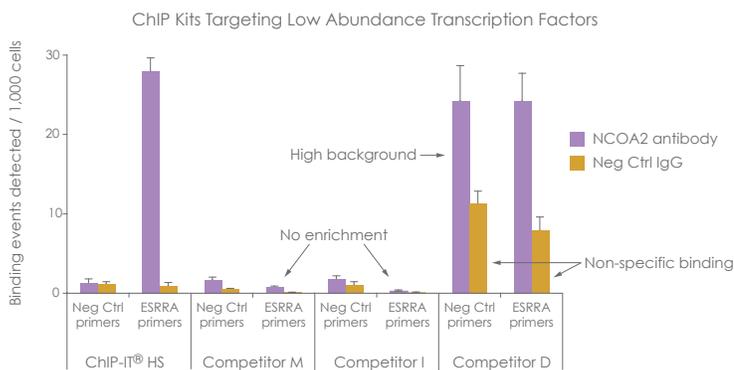
Capture method: Column filtration

IP method: Protein G agarose beads

Procedure length: 2 - 3 days

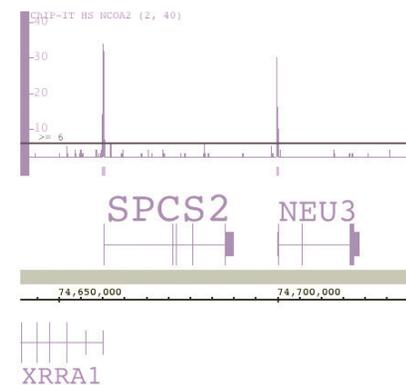
Compatible downstream applications:

- qPCR
- ChIP-chip
- ChIP-Seq



▲ **FIGURE 1:** ChIP-IT High Sensitivity shows better enrichment than competitor ChIP Kits.

A comparison of ChIP kits targeting a low abundance transcription factor was performed using an antibody for the low abundance NCOA2 protein and a negative control IgG. Following enrichment, qPCR was performed using the ChIP-IT® qPCR Analysis Kit (Catalog No. 53029) in order to allow stringent normalization of the data for direct comparison of the results.



▲ **FIGURE 2:** ChIP-Seq data showing peaks from transcriptional co-factor NCOA2-enriched DNA generated using ChIP-IT High Sensitivity.

ChIP-Seq data showing peaks from transcriptional cofactor NCOA2 in the promoters of two genes. ChIP was performed using the ChIP-IT High Sensitivity Kit, confirmed with the ChIP-IT qPCR Analysis Kit and followed by sequencing on the Illumina Next-generation sequencing platform.

ORDERING INFORMATION

Product	Format	Cat. No.
ChIP-IT High Sensitivity® Kit	16 rxns	53040
High Sensitivity Chromatin Preparation Kit	16 rxns	53046
ChIP-IT® qPCR Analysis Kit	10 rxns	53029