ACTIVE MOTIF®
Enabling Epigenetics Research

# TAG-ChIP-IT®

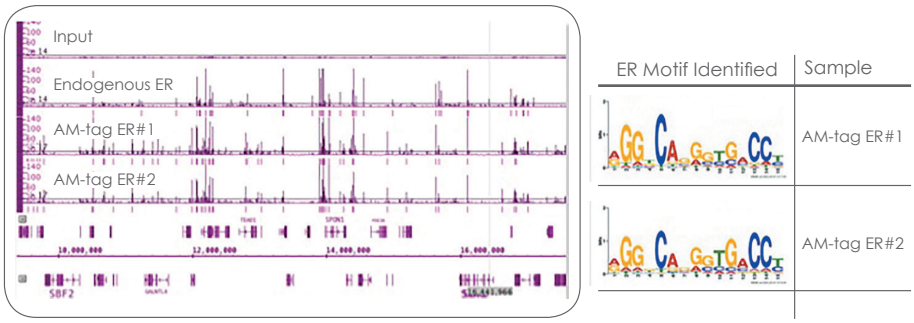
## Perform ChIP without protein-specific antibodies

Active Motif's Tag-ChIP-IT® Kit addresses a commonly encountered issue when considering ChIP, the lack of available ChIP-grade antibodies to a target of interest. A common solution to this issue is to use an epitope tag, such as FLAG, HA, and GFP, to tag the protein of interest. However, since these tags are not specifically designed for ChIP, they have a high and unpredictable failure rate. Tag-ChIP-IT is the first epitope-tagging procedure that is specifically optimized for ChIP.

## How does it work?

Tag-ChIP-IT utilizes a unique AM-tag (patent pending) designed specifically for ChIP consisting of a small, unstructured sequence that can be attached to any protein of interest. Furthermore, we have designed a high specificity antibody to the tag for maximum pull-down efficiency during immunoprecipitation (IP). Combined with optimized reagents and a streamlined protocol, this unique ChIP method enables researchers the ability to perform ChIP on any target without the need for target-specific antibodies. For more complete information, please visit us at www.activemotif.com/tagchip.

- ✓ Ideal for targets lacking ChIP-qualified antibodies
- ✓ Improved sensitivity & specificity over FLAG, GFP and HA tags
- ✓ Negligible cross-reactivity with mammalian systems
- ✓ Study isoforms, mutations & truncations with ease




▲ FIGURE: Tag-ChIP-IT identifies same estrogen receptor (ER) binding motifs as published ChIP-Seq data.
ER cDNA was cloned into pAM_1C Empty Vector and transiently transfected into cells. Cells were induced with estradiol and ChIP was performed on harvested chromatin using the Tag-ChIP-IT Kit. Enriched DNA was submitted for Next-generation sequencing. Data was compared to published ChIP-Seq results from ER antibody enrichment performed under the same conditions. ChIP-Seq data shows the same ER peak profile with the AM-tag ChIP as endogenous ER. Detected binding sites were further evaluated for binding motifs. Results show the ER motif was identified in both Tag-ChIP-IT samples.

## WHAT'S IN THE BOX?

The Tag-ChIP-IT Kit contains all the buffers and reagents necessary for ChIP analysis using the AM-tag. The pAM_1C Empty Vector **is available separately** and is used to clone your protein of interest in-frame with the C-terminal AM-tag. Alternatively, the AM-tag sequence can be cloned into your expression vector of choice. Following transfection and expression of your tagged protein, the Tag-ChIP-IT Kit is used to isolate chromatin and perform IPs using AM-Tag antibody specific for the AM-tag.

## ORDERING INFORMATION

| Product | Format | Cat. No. |
|---|---|---|
| Tag-ChIP-IT® Kit | 16 rxns | 53022 |
| pAM_1C Empty Vector | 20 µg | 53023 |
| FuGENE® HD Transfection Reagent | 0.2 ml | 32042 |
| | 0.5 ml | 32043 |

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