

**Chromatin immunoprecipitation assays for Myc and N-Myc.**

<b>Journal:</b>	Methods Mol Biol
<b>Publication Year:</b>	2013
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<b>PubMed link:</b>	24006062
<b>Funding Grants:</b>	Molecular mechanisms governing hESC and iPS cell self-renewal and pluripotency

**Public Summary:**

Myc and N-Myc have widespread impacts on the chromatin state within cells, both in a gene-specific and genome-wide manner. Our laboratory uses functional genomic methods including chromatin immunoprecipitation (ChIP), ChIP-chip, and, more recently, ChIP-seq to analyze the binding and genomic location of Myc. In this chapter, we describe an effective ChIP protocol using specific validated antibodies to Myc and N-Myc. We discuss the application of this protocol to several types of stem and cancer cells, with a focus on aspects of sample preparation prior to library preparation that are critical for successful Myc ChIP assays. Key variables are discussed and include the starting quantity of cells or tissue, lysis and sonication conditions, the quantity and quality of antibody used, and the identification of reliable target genes for ChIP validation.

**Scientific Abstract:**

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