R&D Systems Tools for Cell Biology Research™

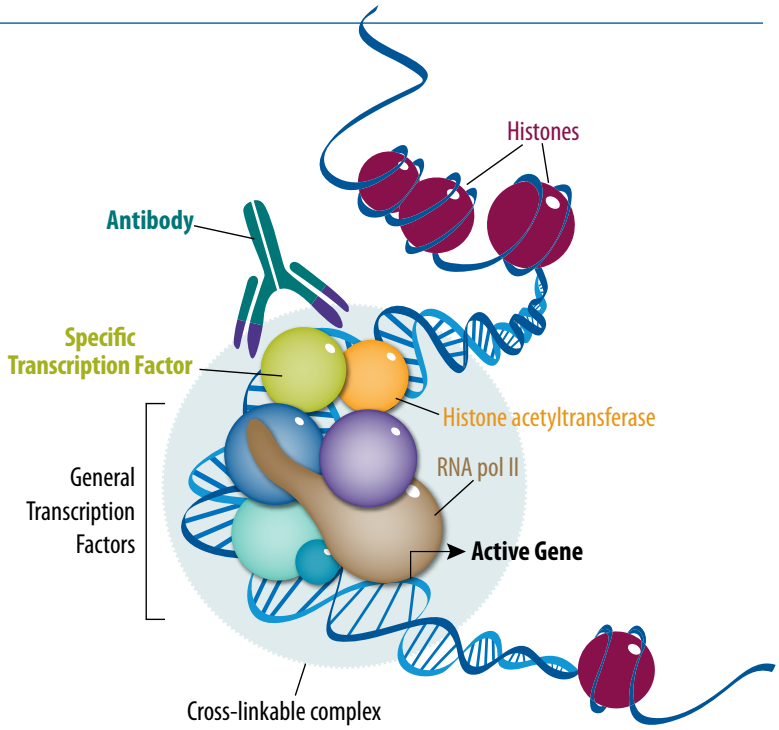
ExactaChIP™ Chromatin IP Kits

ChIP exactly as you would want it to be: fast & simple.

- ✓ Antibodies have been validated for chromatin immunoprecipitation
- ✓ Fast – results can be obtained in 4 - 5 hours
- ✓ A negative control antibody is included with each kit
- ✓ Consistent results from one experiment to the next
- ✓ Detailed, easy to follow protocols and troubleshooting guide are provided
- ✓ Positive control primer set included with each kit allows confidence in the experimental results obtained

Assay Principle

R&D Systems ExactaChIP Chromatin IP Kits are designed to provide a fast, simple method for the identification of genomic DNA target sequences bound by a specific protein. Protein-DNA complexes are fixed by formaldehyde crosslinking, the chromatin is sheared and the complex is immunoprecipitated using an antibody specific for the target protein. Protein-bound DNA fragments are purified and subsequently amplified by PCR.



Kit Components

- Analyte-specific primary antibody
- Biotinylated control antibody
- Chelating resin solution
- Control primer set
- Lysis buffer
- Wash buffers
- Dilution buffer

ExactaChIP Chromatin IP Kits

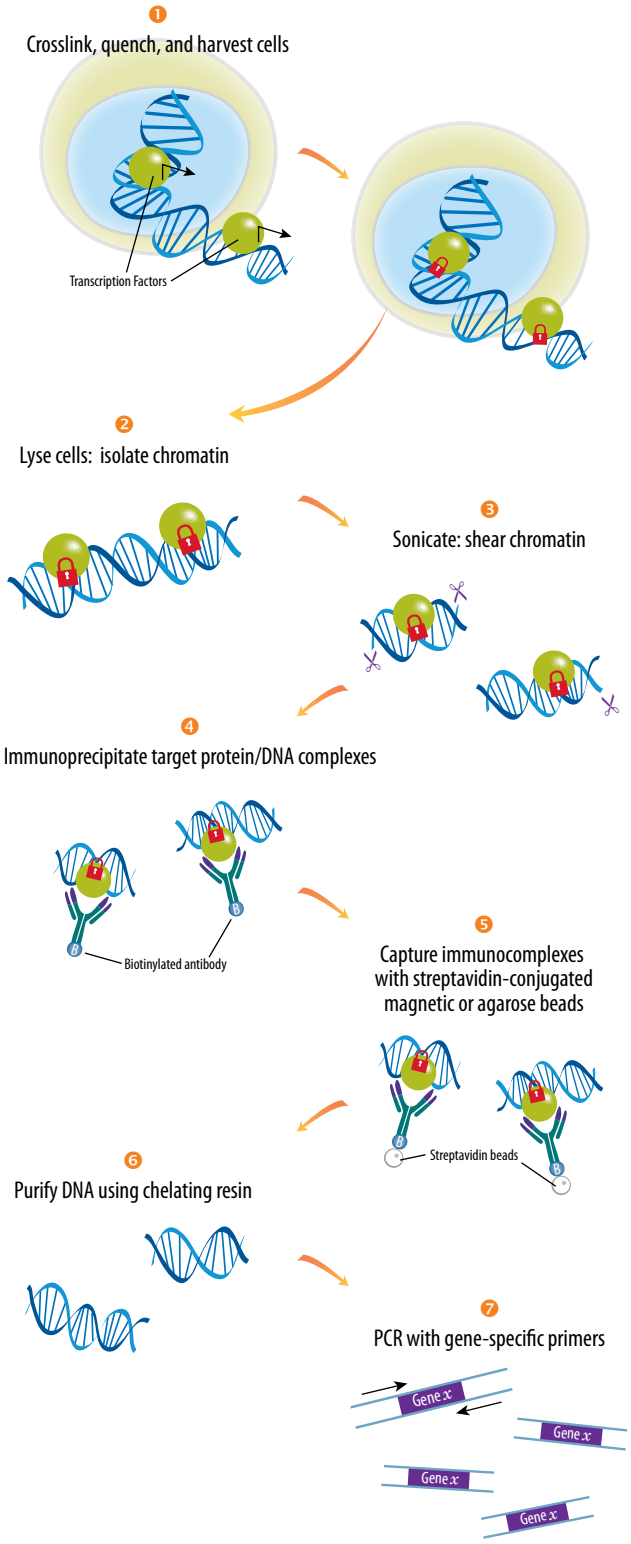
ChIP KIT ANTIBODY	SPECIES	CONTROL PRIMERS	CATALOG #
β-Catenin	H	SU(Z)12	ECP1329
c-Myc	H	p21	ECP3696
CREB	H	Fos	ECP2989
FoxP3	H	IL-2	ECP3240
GATA-4	H	MUC4	ECP2606
GATA-5	H	MUC4	ECP2170
GATA-6	H	MUC4	ECP1700
GLI-1	H	Bcl-2	ECP3324
GLI-2	H	Bcl-2	ECP3526
GLI-3	H	GLI-1	ECP3690

ChIP KIT ANTIBODY	SPECIES	CONTROL PRIMERS	CATALOG #
HIF-1α	H M	Erythropoietin, VEGF	ECP1935
KLF4	H, M	B2R	ECP3640, ECP3158
Nanog	H	Nanog	ECP1997
Oct-3/4	H	Nanog	ECP1759
p53	H	p21	ECP1355
p300	H	Fos	ECP3789
Smad4	H	p21	ECP2097
SOX2	H	Nanog	ECP2018
STAT3	H M	c-Myc	ECP1799
STAT5	H M	Bcl-x	ECP2168

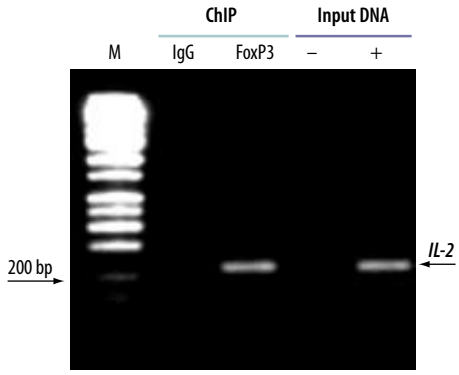
Key: **H** Human **M** Mouse

For more information visit our website at **www.RnDSystems.com/go/ExactaChIP**

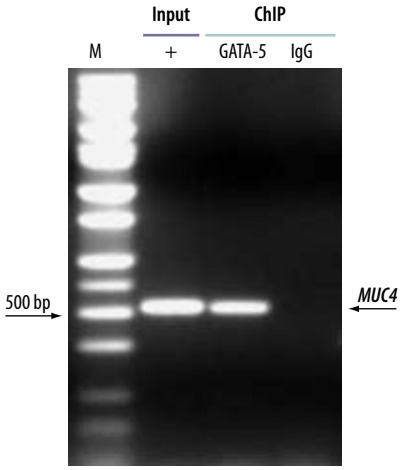
ExactaChIP Assay Principle



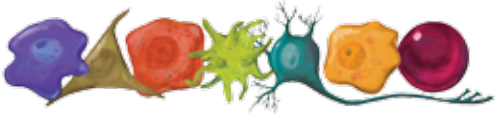
Detection of Transcription Factor Binding Sites



Detection of FoxP3 Genomic Targets by Chromatin Immunoprecipitation. Human Jurkat leukemic T cells were stimulated with PMA and ionomycin, fixed, and lysed. FoxP3 binding sites were assessed using the FoxP3 ExactaChIP Chromatin IP Kit (Catalog # ECP3240). Briefly, cell lysates were incubated with biotinylated anti-human FoxP3 polyclonal antibody or biotinylated anti-goat IgG polyclonal antibody (both provided in the kit) followed by MagCellect™ Streptavidin Ferrofluid (Catalog # MAG999). DNA was purified from the immunoprecipitates, and the *IL-2* promoter was detected by standard PCR using primers specific for *IL-2* (provided in the kit). M = DNA marker; Input = an aliquot of the total DNA used for immunoprecipitation was added (+), or omitted (-), from the PCR reaction.



Detection of GATA-5 Genomic Targets by Chromatin Immunoprecipitation. GATA-5 binding sites were assessed in HeLa cells using the GATA-5 ExactaChIP Chromatin IP Kit (Catalog # ECP2170). After fixation and lysis, cell lysates were incubated with anti-human GATA-5 polyclonal antibody followed by biotinylated anti-goat IgG polyclonal antibody (both provided in the kit) or with biotinylated anti-goat IgG polyclonal antibody alone. Immunocomplexes were captured using MagCellect Streptavidin Ferrofluid (Catalog # MAG999), and the DNA was purified using a chelating resin solution. The *MUC4* promoter was detected by standard PCR using primers specific for *MUC4* (provided in the kit). M=DNA Marker; Input = an aliquot of the total DNA used for immunoprecipitation was added to the PCR reaction.



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