

MAGnify™ Chromatin Immunoprecipitation System

What is it?

The MAGnify™ Chromatin Immunoprecipitation System is designed to deliver reproducible chromatin immunoprecipitation (ChIP) results within 5 hours. It consists of 3 components (magnet, antibody, and immunoprecipitation kit) that have been designed to work optimally together, and includes all reagents necessary to perform a ChIP experiment. Reagents for downstream analyses, e.g., qPCR validation, need to be ordered separately.

Why is this kit different?

1. Fast and easy protocol—no expertise required; reproducible results in 5 hours*

Workflow step	MAGnify™ ChIP System timeline	Conventional ChIP timeline
Preclearing	NA	1–2 hr
Antibody/chromatin incubation	2 hr	Overnight
Bead pulldown	1 hr	2 hr
Washes	30 min (2 buffers)	1–3 hr (4 buffers)
Reverse crosslinking		Overnight
Proteinase K digestion	1.5 hr	2 hr
DNA elution from beads		15–30 min
DNA purification		2 hr to overnight
Average time	5 hr	36–38 hr

* The MAGnify™ immunoprecipitation workflow uses a magnet-based system that is compatible with strip tubes and multichannel pipettors.

2. Ultrasensitive—very few cells (10,000–300,000) are required

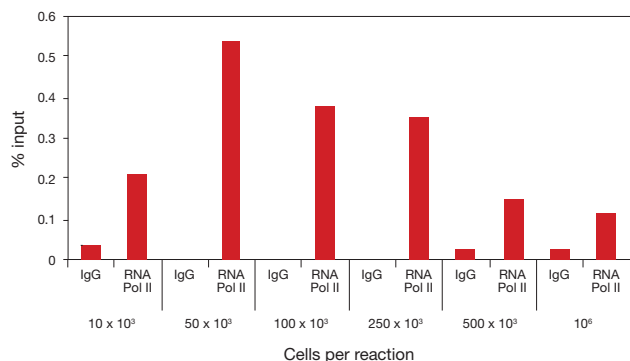


Figure 1. Cell titration—RNA pol II recruitment to the c-fos promoter. Immunoprecipitation of crosslinked DNA to RNA pol II was measured in sheared chromatin from the indicated number of MCF-7 cells; IgG was used as a negative control. A signal was detected from as few as 10,000 cells.

3. Optimized reagents designed to work together—produce better results

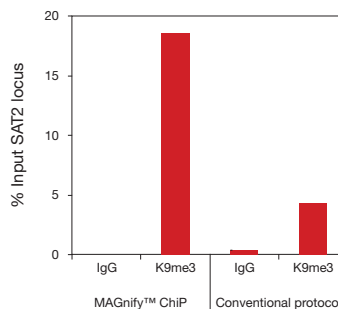


Figure 2. MAGnify™ ChIP Kit vs. conventional ChIP protocol. Analysis of heterochromatin-associated H3K9me3 was carried out on sheared chromatin from 50,000 cells (MAGnify™ ChIP Kit) or 1,000,000 cells (conventional ChIP protocol). Greater sensitivity was observed with the MAGnify™ ChIP Kit even when 20x fewer cells were analyzed.

Immunoprecipitation

How do I order?

The system requires 3 components:

1. The magnet (DynaMag™-PCR Magnet)—this needs to be ordered only once.
2. The buffer system (MAGnify™ Chromatin Immunoprecipitation System)—this component is compatible with validated Invitrogen™ antibodies or other antibodies of your choice.

The MAGnify™ system contains 1.25 M Glycine, Lysis Buffer, Dilution Buffer, IP Buffer 1, IP Buffer 2, Dynabeads® Protein A/G Mix, Mouse IgG, Rabbit IgG, 20 mg/mL Proteinase K, 200X Protease Inhibitors, Reverse Crosslinking Buffer, DNA Purification Buffer, DNA Purification Magnetic Beads, DNA Wash Buffer, and DNA Elution Buffer.

3. Antibodies for immunoprecipitation. Invitrogen™ antibodies have been validated using real-time PCR.

Ordering information

Product	Quantity	Cat. No.
DynaMag™-PCR Magnet	1 each	49-2025
MAGnify™ Chromatin Immunoprecipitation System	24 reactions	49-2024
CIITA (Human) (Host: Rabbit)	50 µg	49-1001
Estrogen Receptor alpha (Human) (Host: Mouse)	50 µg	49-1002
H3K4me1 (Human) (Host: Rabbit)	100 µL	49-1003
H3K4me2 (Human) (Host: Rabbit)	100 µL	49-1004
H3K4me3 (Human, Mouse) (Host: Rabbit)	24 µg	49-1005
H3K9me1 (Human) (Host: Rabbit)	100 µL	49-1006
H3K9me2 (Human) (Host: Rabbit)	50 µg	49-1007
H3K9me3 (Human, Mouse) (Host: Rabbit)	50 µg	49-1008
H3K9ac (Human) (Host: Rabbit)	44 µg	49-1009
H3K9/14ac (Human) (Host: Rabbit)	44 µg	49-1010
H3K9acS10p (Human) (Host: Rabbit)	100 µL	49-1011
H3K27me1 (Human) (Host: Rabbit)	50 µg	49-1012
H3K27me2 (Human) (Host: Rabbit)	50 µg	49-1013
H3K27me3 (Human) (Host: Rabbit)	50 µL	49-1014
H3K27me3S28p (Human) (Host: Rabbit)	100 µL	49-1015
H3K36me1 (Human) (Host: Rabbit)	50 µg	49-1016
H3K36me3 (Human, Mouse) (Host: Rabbit)	50 µg	49-1017

Product	Quantity	Cat. No.
H3K79me1 (Human) (Host: Rabbit)	100 µL	49-1018
H3K79me2 (Human) (Host: Rabbit)	100 µL	49-1019
H3K79me3 (Human, Mouse) (Host: Rabbit)	50 µg	49-1020
H3R17me2 (Human) (Host: Rabbit)	100 µL	49-1021
H4K8ac (Human) (Host: Rabbit)	100 µL	49-1022
H4K20me1 (Human) (Host: Rabbit)	100 µL	49-1023
H4K20me3 (Human) (Host: Rabbit)	50 µL	49-1024
HDAC1 (Human, Mouse) (Host: Rabbit)	50 µg	49-1025
Glucocorticoid Receptor (Human) (Host: Mouse)	50 µg	49-1026
MBD1 (Human) (Host: Rabbit)	50 µg	49-1027
DNMT3B (Mouse) (Host: Rabbit)	5 µg	49-1028
MeCP2 (Human) (Host: Rabbit)	50 µg	49-1029
NF-YB (Human) (Host: Rabbit)	100 µg	49-1030
p53 (Human) (Host: Rabbit)	50 µg	49-1031
p63 (Human) (Host: Rabbit)	50 µg	49-1032
Pol II (Human) (Host: Mouse)	100 µL	49-1033
RFX-AP (Human) (Host: Rabbit)	50 µg	49-1034
Suz12 (Human, Mouse) (Host: Rabbit)	50 µg	49-1035
TBP (Human) (Host: Mouse)	100 µg	49-1036
TIP5 (Human, Mouse) (Host: Rabbit)	100 µL	49-1037

For more information, please visit www.invitrogen.com.



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