

DiagAg™ Plus Protein G Agarose Particles Enzymatic ChIP Kit

Cat.No: DAG-CS23-03

DESCRIPTION

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DiagAg™ Plus Protein G Agarose Particles Enzymatic ChIP Kit contains the buffers and reagents necessary to perform up to 30 chromatin immunoprecipitations from cells or tissue samples, and is optimized for 4E+6 cells or 25 mg of tissue per immunoprecipitation. A complete assay can be performed in as little as two days and can easily be scaled up or down for use with more or less cells or tissue sample.

Chromatin immunoprecipitations are performed using ChIP-validated antibodies and ChIP-Grade Protein G Agarose Particles. After reversal of protein-DNA cross-links, the DNA is purified using DNA purification spin columns, allowing for easy and efficient recovery of DNA and removal of protein contaminants without the need for phenol/chloroform extractions and ethanol precipitations. The enrichment of particular DNA sequences during immunoprecipitation can be analyzed by a variety of methods, including standard PCR and quantitative real-time PCR. Please note that this kit is not compatible with ChIP-seq because the ChIP-Grade Protein G Agarose Particles are blocked with sonicated salmon sperm DNA, which interferes with downstream sequencing. Plus Kit also provides important controls to ensure a successful ChIP experiment. The kit contains a positive control Histone H3 Antibody, a negative control Normal Rabbit IgG Antibody and primer sets for PCR detection of the human and mouse ribosomal protein L30 (RPL30) genes. Histone H3 is a core component of chromatin and is bound to most DNA sequences throughout the genome, including the RPL30 locus. Thus, the Histone H3 Antibody provides a universal positive control that should enrich for almost any locus examined.

APPLICATION

Application Notes

ChIP assays

KIT COMPONENTS

Kit Components	Quantity	Storage
Glycine Solution (10X)	1 x 100 mL	4°C
Buffer A (4X)	1 x 25 mL	4°C
Buffer B (4X)	1 x 25 mL	4°C
ChIP Buffer (10X)	1 x 20 mL	4°C
ChIP Elution Buffer (2X)	1 x 7 mL	4°C
5 M NaCl	1 x 3 mL	4°C
0.5 M EDTA, pH 8.0	1 x 1 mL	4°C
ChIP-Grade Protein G Agarose Particles	1 x 1 mL	4°C
DNA Binding Buffer	1 x 30 mL	RT
DNA Wash Buffer (add 4x volume ethanol before use)	1 x 6 m	RT
DNA Elution Buffer	2 x 1 mL	RT
DNA Purification Columns and Collection Tubes	1 x 36 Pack	RT
Protease Inhibitor Cocktail (200X)	2 x 750 µL	-20°C
RNAse A (10 mg/mL)	1 x 50 µL	-20°C
Micrococcal Nuclease	1 x 60 µL	-20°C
Proteinase K (20 mg/mL)	1 x 100 µL	-20°C
Human RPL30 Exon 3 Primers	1 x 150 µL	-20°C

Kit Components	Quantity	Storage
Mouse RPL30 Intron 2 Primers	1 x 150 µL	-20°C
Histone H3 (D2B12) Rabbit mAb (ChIP Formulated)	1 x 100 µL	-20°C
Normal Rabbit IgG	1 x 50 µL	-20°C
DTT (Dithiothreitol)	1 x 192.8 mg	4°C

PRODUCT INFORMATION

Ligand	Recombinant Protein G
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STORAGE AND SHIPPING

Storage	Store components at the temperatures indicated on the individual tube labels. Store DTT at -20°C once in solution.
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TECHNOTES

TECHNOTES	The Kit can be utilized with any ChIP-validated antibody to detect endogenous levels of protein-DNA interactions and histone modifications in mammalian cells and tissue samples. The positive control Histone H3 Antibody recognizes many different species of the highly conserved Histone H3 protein, including human, mouse, rat and monkey.
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