ChIP-Grade Protein G Agarose Beads

1 ml (30 immunoprecipitations)



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Description: ChiP-Grade Protein G Agarose Beads are an affinity matrix for the small-scale isolation of immunocomplexes from chromatin immunoprecipitations (ChIP assays). A truncated form of recombinant Protein G is covalently coupled to agarose beads. Protein G exhibits high affinity for subclasses of IgG from many species, (including human, rabbit, mouse, rat and sheep) and can be used for immunoprecipitation assays with these antibodies. The beads are stored in buffer containing BSA (500 μ g/ml) and sonicated salmon sperm DNA (200 μ g/ml) to block non-specific binding of proteins and DNA during isolation of immunocomplexes. These beads are not compatible with ChIP-seq because the sonicated salmon sperm DNA interferes with downstream sequencing.

Quality Control: The beads are routinely used in our SimpleChIP™ Enzymatic Chromatin IP Kits (Agarose Beads) #9002.

Directions for Use: Vortex tube briefly to resuspend the beads. Add 30 μ I of bead slurry to each chromatin immunoprecipitation (ChIP) reaction. For bead washing and subsequent elution of immunocomplexes, the beads can be separated from solution by a brief 1 minute centrifugation in a microcentrifuge at 6,000 rpm. Resuspend the beads in solution by gently vortexing or rocking the tube.

These beads are specifically formulated for ChIP assays, if working with immunoprecipitation (IP) assays please see #37478 Protein G Agarose Beads.



Chromatin immunoprecipitations were performed using digested chromatin from HeLa cells and either Histone H3 (D2B12) XPTM Rabbit mAb (ChIP Formulated) #4620 (lane 2), Rpb1 CTD (4H8) Mouse mAb #2629 (lane 3), Di-Methyl Histone H3 (Lys9) Antibody #9753 (lane 4), or Normal Rabbit IgG #2729 (lane 5). Purified DNA was analyzed by standard PCR methods using SimpleChIPTM Human RPL30 Exon 3 Primers #7014, SimpleChIPTM Human MyoD1 Exon 1 Primers #4490, and SimpleChIPTM Human α Satellite Repeat Primers #4486. PCR products were observed for each primer set in the input sample (lane 1) and various protein-specific immunoprecipitations, but not in the immunoprecipitation using Normal Rabbit IgG #2729 (lane 5).



Chromatin immunoprecipitations were performed using digested chromatin from HeLa cells and the indicated antibodies. Purified DNA was analyzed by quantitative Real-Time PCR, using SimpleChIPTM Human RPL30 Exon 3 Primers #7014, SimpleChIPTM Human MyoD1 Exon 1 Primers #4490, and SimpleChIPTM Human α Satellite Repeat Primers #4486. The relative abundance of each DNA sequence enriched by protein-specific immunoprecipitations is compared to the amount of the same DNA sequence enriched by the non-specific Normal Rabbit IgG #2729 (background).

Storage: Supplied in 10 mM Tris-HCI (pH 7.5), 1 mM EDTA, 500 μ g/ml BSA, 200 μ g/ml sonicated salmon sperm DNA and 0.05% sodium azide. Store at 4°C.

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