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Chromatin Immunoprecipitation by [Work](#)

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As far as the study of gene expression is concerned, the process of immunoprecipitation has become very popular over the past decade. ChIP assay is actually a dynamic means of evaluating modifications and genetic information regarding patterns of gene expression regulation (influence of so called epigenetic marks, such as Histone modifications, transcription factors or DNA methylation).

An ideal ChIP Kit provides a fast, reproducible and simple technique to execute Chromatin IP assays (ChIP). It usually consists of enough reagents to perform the assays, needs proper controls and a suitable format with an optimized protocol. For enhanced effectiveness, highly specific control reagents must be used. The ChIP/Chromatin IP assays demands a classical range of molecular biology techniques like cell lysis, chromatin cross linking, immunoprecipitation, PCR, qPCR, arrays (ChIP-on-chip) or Next Generation Sequencing (ChIP-seq) for genome wide analysis, etc.

Cross linking is usually covalently achieved using formaldehyde but it can also be used combined with some other cross linkers like Di-succinimidyl glutarate (DSG). This step is followed by cell lysis. In this step, the cellular components get liberated and are set free by liquefying the cell membrane with a detergent based solution. The protein-DNA complex will not be affected by the salts or detergents because cross linking has occurred in the previous step. These steps are further followed by chromatin preparation, immunoprecipitation, DNA clean-up and the concluding step of DNA quantification.

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