Datasheet for ABIN4889666

Spike-in Chromatin

Overview

Quantity:	15 tests
Species:	Drosophila melanogaster
Oligo-Type:	Chromatin and DNA
Application:	Chromatin Immunoprecipitation (ChIP)

Product Details

Purpose:	10 µg Spike-in Chromatin prepared from Schneider's ***Drosophila*** Line 2 to normalize chromatin immunoprecipitation (ChIP) experiments.
Purification:	The Spike-in Chromatin is sonicated using an Epishear Probe sonicator. Chromatin is then tested with Spike-in Antibody in a ChIP-IT High Sensitivity Kit.
Components:	10 µg Spike-in Chromatin prepared from Schneider's ***Drosophila*** Line 2 to normalize chromatin immunoprecipitation (ChIP) experiments.

Application Details

Application Notes:	ChIP is a multi-step process in which variations caused by sample loss during immunoprecipitation and library preparation, uneven sequencing read depth or user differences can lead to results that are difficult to interpret. To overcome this challenge, we have developed a spike-in strategy to normalize out technical variation and sample processing bias. Additionally, the normalization strategy can be used to monitor the effects of experimental conditions, such as inhibitory compounds or mutants. A standard ChIP reaction is set up using experimenal chromatin (e.g. human) and an antibody of interest. In addition, ***Drosophila melanogaster*** chromatin is added, or "spiked-in", to each reaction as a minor fraction of the total chromatin. An antibody that recognizes the ***Drosophila***-specific histone variant, H2Av, is also added to the reaction. The Spike-in antibody provides a mechanism to reliably pull down a small fraction of ***Drosophila*** chromatin that is consistent across all samples. Since variation introduced during the ChIP procedure will aslo occur with the spike-in chromatin, a

Application Details

	normalization factor can be created based on the ***Drosophila*** signal and applied to the sample genome. Unlike other normalization methods that rely on the same protein-specific antibody for both sample and normalization control, our normalization strategy with the separate Spike-in antibody enables normalization across different antibodies without bias.
Restrictions:	For Research Use only

Handling

Storage:	-80 °C
Storage Comment:	Store at -80°C. We recommend aliquoting the chromatin into single-use fractions and then storing them at -80°C. This eliminates repeated freeze/thaw cycles.

Publications

Product cited in:	Johnson, Drugan, Miller, Evans: "38" in: , Vol. 1363, Issue Nucleic acids research, pp. 28-39, (1991)