abcam

Product datasheet

# ChIP Kit - Plants ab117137

8 References 2 Images

## Overview

| | |
|---|---|
| **Product name** | ChIP Kit - Plants |
| **Assay type** | Quantitative |
| **Assay time** | 6h 00m |
| **Species reactivity** | **Reacts with:** Plants |
| **Product overview** | Protein-DNA interactions play a critical role for cellular functions such as signal transduction, gene transcription and epigenetic silencing. In plants, interactions between the DNA-binding proteins and cognate promoter sequences are primary determinants in establishing spatial and temporal expression patterns of gene that affect homeostasis, development, and adaptation.<br><br>Abcam's ChIP Kit - Plants (ab117137) offers an advantageous tool for identifying direct genome-wide associations between specific regulatory proteins and their target genes in plant cells within 6 hours. The kit is suitable for combining the specificity of immunoprecipitation with qualitative and quantitative PCR, MS-PCR, DNA sequencing and southern blot, as well as DNA microarray.<br><br>This kit is designed for 24 or 48 ChIP reactions, not for 24 or 48 samples. The standard protocol of the kit allows for performing 8 reactions with one sample. For testing more samples, the amount of each sample should be reduced. The amount of each reagent used for chromatin preparation should be also proportionally reduced. |
| **Notes** | **ChIP assay products and guides**<br><br>Find more **ChIP assay / chromatin immunoprecipitation** resources and products, **ChIP antibody** products, and other **ChIP assay kits and related reagents**. |
| **Tested applications** | **Suitable for:** ChIP |

## Properties

| | |
|---|---|
| **Storage instructions** | Please refer to protocols. |

| Components | 24 tests | 48 tests |
|---|---|---|
| 100X Protease Inhibitor Cocktail | 1 x 25µl | 1 x 50µl |
| 5X Lysis Buffer I | 1 x 12ml | 1 x 24ml |

| Components | 24 tests | 48 tests |
|---|---|---|
| 8-Well Assay Strips (with Frame) | 3 units | 6 units |
| 8-Well Strip Caps | 3 units | 6 units |
| Antibody Buffer | 1 x 15ml | 1 x 30ml |
| Anti-H3K9me2 (1 mg/mL) | 1 x 5µl | 1 x 8µl |
| Binding Buffer | 1 x 5ml | 1 x 8ml |
| ChIP Dilution Buffer | 1 x 2ml | 1 x 6ml |
| DNA Release Buffer | 1 x 2ml | 2 x 2ml |
| Elution Buffer | 1 x 0.6ml | 1 x 1.2ml |
| F-Collection Tube | 30 units | 50 units |
| F-Spin Column | 30 units | 50 units |
| Lysis Buffer Ⅱ | 1 x 3ml | 1 x 6ml |
| Lysis Buffer Ⅲ | 1 x 2ml | 1 x 4ml |
| Lysis Buffer Ⅳ | 1 x 1.5ml | 1 x 5ml |
| Normal Mouse IgG (1 mg/mL) | 1 x 10µl | 1 x 10µl |
| Proteinase K (10 mg/mL) | 1 x 25µl | 1 x 50µl |
| Reverse Buffer | 1 x 2ml | 2 x 2ml |
| Wash Buffer | 1 x 28ml | 2 x 28ml |

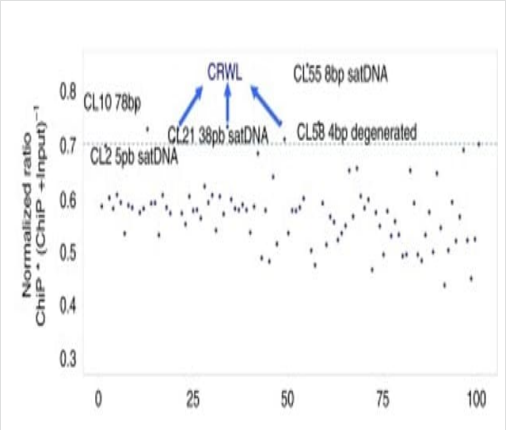
## Applications

**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab117137 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

| Application | Abreviews | Notes |
|---|---|---|
| **ChIP** | | Use at an assay dependent concentration. |

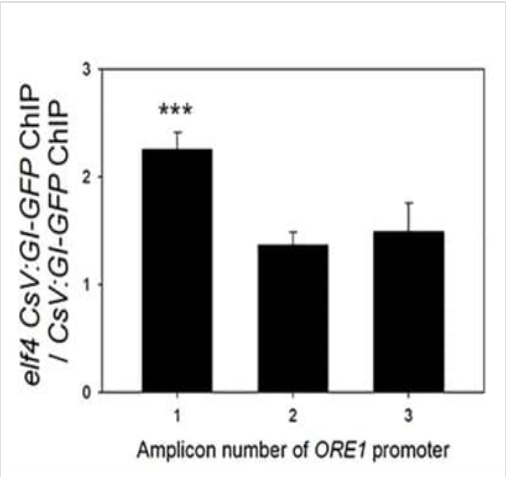
## Images




ChIP - ChIP Kit - Plants (ab117137)

Image from Hufnagel et al., Nat Commun.;11(1):492. doi: 10.1038/s41467-019-14197-9. Reproduced under the Creative Commons license https://creativecommons.org/licenses/by/4.0/

Repeated elements abundance in White Lupin genome. Chromatin immunoprecipitation experiments were done with ChIP Kit - Plants (ab117137). Sonicated chromatin-DNA ranging from 200-1000 bp was immunoprecipitated using anti-LalbCENH3. LalbCENH3-ChIPseq reads mapped against the first 100 RepeatExplorer clusters of the White Lupin genome. The main centromeric sequences found in LalbCENH3-ChIPseq are highlighted.




ChIP - ChIP Kit - Plants (ab117137)

Image from Kim et al., Front Plant Sci.,11:589707. doi: 10.3389/fpls.2020.589707. Reproduced under the Creative Commons license https://creativecommons.org/licenses/by/4.0/

ORE1 promoter-binding activity of GIGANTEA in the elf4 mutant relative to that in the wild type at amplicons 1, 2, and 3. ChIP assays were performed using the ChIP Kit-Plants (ab117137). Chromatin was immunoprecipitated using anti-GFP antibody (**ab290**)-bound assay plate for 90 min. The resulting immunoprecipitated DNA was subjected to qPCR to examine the enrichment of target genes. Three biological replicates were performed. Asterisks indicate significant differences (*p < 0.05, **p < 0.01, ***p < 0.005; Student's t-test).

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit **https://www.abcam.com/abpromise** or contact our technical team.

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