Advancements in Epigenetics

Chromatin immunoprecipitation (ChIP) assays were performed using the Chromatrap® standard ChIP spin column sonication kit for qPCR (Cat no. 500071) with 1μg of chromatin from HeLa cells and 2μg of Anti-H3K4me3 antibody. qPCR was used to analyse the enrichment of H3K4me3 onto the positive gene target locus compared with the negative gene target locus.

**Fig 1. H3K4me3 ChIP qPCR**

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**Anti H3K4me3, Clone RM137**

- **Catalogue no:** 700010
- **Applications:** ChIP, WB, ELISA, Multiplex
- **Source:** Rabbit
- **Concentration:** 1mg/ml
- **Type:** Monoclonal
- **Size:** 100μl
- **Purification:** Protein A (affinity purified)
- **Storage:** -20°C
- **Specificity:** Human

**Background:**

Histone 3 (H3) is one of the core histone proteins, comprising the protein component of chromatin. H3 is ubiquitous within chromosomes and can be found bound to most gene sequences throughout the genome. Tri-methylation of lysine 4 is associated with transcriptional start sites and gene activation.

**Immunogen:**

An trimethyl-peptide corresponding to trimethyl-histone H3 (Lys 4).

**Buffer:**

PBS with 1% BSA and 0.09% sodium azide.

**Applications:**

<table>
<thead>
<tr>
<th>Application</th>
<th>Suggested Dilution</th>
<th>Figure</th>
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<tbody>
<tr>
<td>Chromatin Immunoprecipitation</td>
<td>2μg: 1μg (antibody: chromatin)</td>
<td>1</td>
</tr>
<tr>
<td>Western Blot</td>
<td>0.2μg/mL - 1μg/mL</td>
<td></td>
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<tr>
<td>ELISA</td>
<td>0.1μg/mL – 0.5μg/mL</td>
<td></td>
</tr>
<tr>
<td>Multiplex</td>
<td>0.1μg/mL – 0.5μg/mL</td>
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Please note: Optimal antibody dilutions should be determined by the user. These volumes are stated as guidelines only.

*This product is for research use only. There is a possibility that results may vary between antibody lots.