



## ChIP Validated H3K27ac Antibody (Clone RM172) with Positive Primer Set

Catalogue no: 900021

Chromatrap®'s ChIP Validated H3K27ac Antibody and Positive Primer Set provides a complete set of tools to assist with a successful ChIP assay. Including: H3K27ac antibody, control rabbit IgG, and a positive primer set. The ChIP Validated H3K27ac Antibody and Positive Primer Set is not suitable for use with non-human species.

### 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. Acetylation of histone H3 occurs at several different lysine positions on the histone tail and is catalysed by a group of enzymes called histone acetyltransferases (HATs). The acetylation of lysine 27 on histone 3 can be used to identify active enhancer sites, separating them from poised enhancers. Histone acetylation is associated with active transcription through its roles in chromatin remodelling and gene activation.

A rabbit IgG is included in this Antibody Primer Set as a negative control for the ChIP experiment.

The H3K27ac positive primer set recognises the promoter of a gene associated with active transcription and is a suitable target for this antibody.

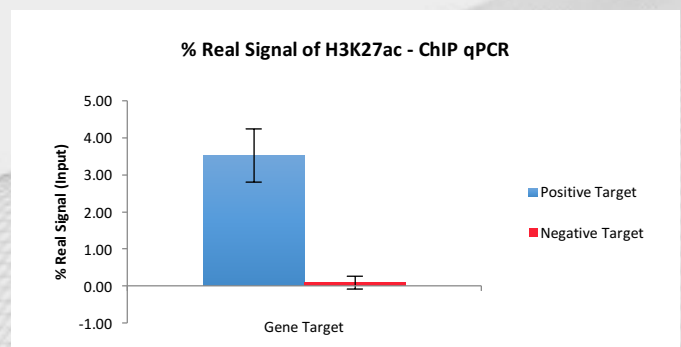
### Suggested Usage:

Component	Suggested Dilution	Figure
H3K27ac	2:1 (antibody: chromatin)	1
Rabbit IgG	2:1 (antibody: chromatin)	1
Positive Primer Set	Dilute from 4µM (provided) to 1µM working concentration	

Please note: Optimal dilutions should be determined by the user. These volumes are stated as guidelines only.

### Fig 1. H3K27ac ChIP qPCR

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 Hec50 cells and 2µg of Anti-H3K27ac antibody. qPCR was used to analyse the enrichment of H3K27ac onto the positive gene target locus compared with the negative gene target locus.



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



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**Applications:** ChIP

**Concentration:** 1mg/ml

**Size:** 50µl

**Specificity:** Human

**Source:** Rabbit

**Type:** Monoclonal

**Purification:** Protein A (affinity purified)

**Storage Conditions:** The H3K27ac antibody should be stored at +4°C. Rabbit IgG and the positive primer set should be stored at -20°C (*Avoid multiple freeze/thaw cycles as this may denature the antibody and degrade the primer sets*)

**Advancements in Epigenetics**

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