

## Anti H4K12ac, Clone RM202

**Catalogue no:** 700018

**Applications:** ChIP, WB, ELISA, Multiplex

**Concentration:** 1mg/ml

**Size:** 100µl

**Specificity:** Human

**Source:** Rabbit

**Type:** Monoclonal

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

**Storage:** +2- +8°C

### Background:

Histone 4 (H4) is one of the core histone proteins, comprising the protein component of chromatin. H4 is ubiquitous within chromosomes and can be found bound to most gene sequences throughout the genome. Lysine 12 on histone 4 (H4K12) can only be acetylated and is not associated with methylation. The histone modification H4K12ac is associated with active promoter regions and has roles in activating the transcription of genes, in particular genes with roles in memory and learning. H4K12ac can have an influence on paternal inheritance in the zygote, indicating the importance of this mark for embryo development.

### Immunogen:

An acetyl-peptide corresponding to Acetyl-Histone H4 (Lys 12).

### Buffer:

PBS with 1% BSA and 0.09% sodium azide.

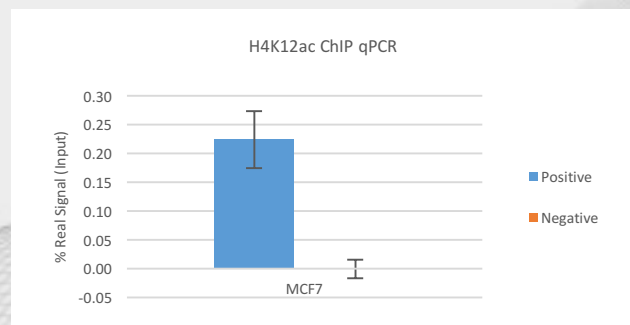
### Applications:

Application	Suggested Dilution	Figure
Chromatin Immunoprecipitation	2µg: 1µg (antibody: chromatin)	1
Western Blot	0.5µg/mL - 2µg/mL	2
ELISA	0.5µg/mL – 1µg/mL	
Multiplex	0.5µg/mL – 2µg/mL	

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

### Fig 1. H4K12ac ChIP qPCR

Chromatin immunoprecipitation (ChIP) assays were performed using the Chromatrap® standard ChIP-Seq spin column sonication kit for (Cat no. 500189). The breast cancer cell line MCF7 cells were treated with 10µM 17-B estradiol for 2h prior to chromatin extraction. For immunoprecipitation 1µg of chromatin with 2µg of Anti-H4K12ac antibody was used. qPCR was used to analyse the enrichment of the positive H4K12ac antibody on both a positive and negative gene target.



### Advancements in Epigenetics

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

**Fig 2. H4K12ac Western Blot**

Western Blot of acid extracts from: (1) HeLa cells treated with sodium butyrate; (2) HeLa cells untreated. Using RM202 at 0.5 $\mu$ g/mL, showed a band of Histone H4 acetylated at Lysine 12 in HeLa cells.

