

p-HDAC4/5/9 (Ser 246/259/220): sc-135656

BACKGROUND

In the intact cell, DNA closely associates with histones and other nuclear proteins to form chromatin. The remodeling of chromatin is believed to be a critical component of transcriptional regulation and a major source of this remodeling is brought about by the acetylation of nucleosomal histones. Acetylation of lysine residues in the amino-terminal tail domain of histone results in an allosteric change in the nucleosomal conformation and an increased accessibility to transcription factors by DNA. Conversely, the deacetylation of histones is associated with transcriptional silencing. The histone deacetylases (HDAC) include HDAC1–9. Subject to post-translational modifications, HDAC4, 5 and 9 contain phosphoserine residues at Ser-246, Ser-259 and Ser-220, respectively.

REFERENCES

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- Pei, M., Chen, D., Li, J. and Wei, L. 2009. Histone deacetylase 4 promotes TGFβ1-induced synovium-derived stem cell chondrogenesis but inhibits chondrogenically differentiated stem cell hypertrophy. *Differentiation* 78: 260-268.
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SOURCE

p-HDAC4/5/9 (Ser 246/259/220) is a rabbit polyclonal antibody raised against a short amino acid sequence containing phosphorylated Ser 246/259/220 of HDAC4/5/9 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

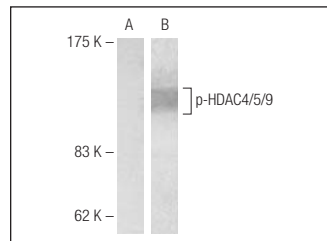
p-HDAC4/5/9 (Ser 246/259/220) is recommended for detection of Ser 246 phosphorylated HDAC4 of human origin and correspondingly phosphorylated Ser 245 of mouse origin; Ser 259 phosphorylated HDAC5 of human origin and correspondingly phosphorylated Ser 250 of mouse origin and Ser 200 phosphorylated HDAC9 of human and mouse origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)].

Molecular Weight of p-HDAC4/5/9: 140 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



p-HDAC4/5/9 (Ser 246/259/220): sc-135656. Western blot analysis of phosphorylated HDAC4/5/9 expression in untreated (A) and insulin-treated (B) 3T3 cell extracts.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.