

Product datasheet

Anti-HDAC5 (phospho S498) antibody ab47283

★★★★★ 1 Abreviews 13 References 2 Images

Overview

Product name	Anti-HDAC5 (phospho S498) antibody
Description	Rabbit polyclonal to HDAC5 (phospho S498)
Host species	Rabbit
Specificity	This antibody is specific for HDAC5, only when phosphorylated at Serine 498.
Tested applications	Suitable for: WB, IHC-P, ELISA
Species reactivity	Reacts with: Human Predicted to work with: Mouse, Rat 
Immunogen	Synthetic peptide corresponding to Human HDAC5 (phospho S498). Immunogen range: 464-513 Database link: Q9UQL6
Positive control	NIH/3T3 cell extracts; Breast carcinoma tissue

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	pH: 7.40 Preservative: 0.02% Sodium azide Constituents: PBS, 50% Glycerol, 0.87% Sodium chloride
Purity	Immunogen affinity purified
Purification notes	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific phosphopeptide. The antibody against non-phosphopeptide was removed by chromatography using non-phosphopeptide corresponding to the phosphorylation site.
Clonality	Polyclonal
Isotype	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab47283** 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
WB	★★★★☆	1/500 - 1/1000. Detects a band of approximately 118 kDa (predicted molecular weight: 122 kDa).
IHC-P		Use at an assay dependent concentration.
ELISA		1/20000.

Target

Function

Responsible for the deacetylation of lysine residues on the N-terminal part of the core histones (H2A, H2B, H3 and H4). Histone deacetylation gives a tag for epigenetic repression and plays an important role in transcriptional regulation, cell cycle progression and developmental events. Histone deacetylases act via the formation of large multiprotein complexes. Involved in muscle maturation by repressing transcription of myocyte enhancer MEF2C. During muscle differentiation, it shuttles into the cytoplasm, allowing the expression of myocyte enhancer factors.

Tissue specificity

Ubiquitous.

Sequence similarities

Belongs to the histone deacetylase family. HD type 2 subfamily.

Domain

The nuclear export sequence mediates the shuttling between the nucleus and the cytoplasm.

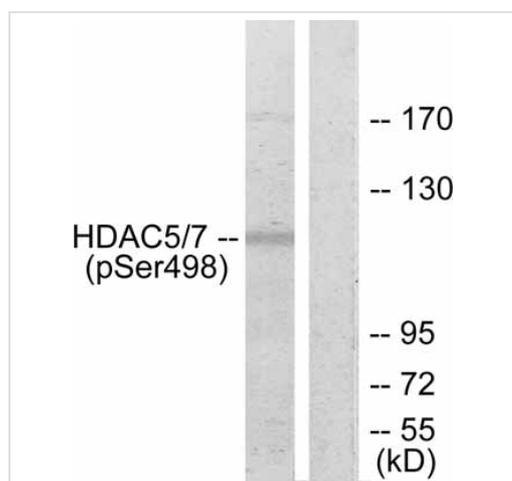
Post-translational modifications

Phosphorylated by CaMK at Ser-259 and Ser-498. The phosphorylation is required for the export to the cytoplasm. Phosphorylated by the PKC kinases PKN1 and PKN2, impairing nuclear import. Ubiquitinated. Polyubiquitination however does not lead to its degradation.

Cellular localization

Nucleus. Cytoplasm. Shuttles between the nucleus and the cytoplasm. In muscle cells, it shuttles into the cytoplasm during myocyte differentiation. The export to cytoplasm depends on the interaction with a 14-3-3 chaperone protein and is due to its phosphorylation at Ser-259 and Ser-498 by CaMK.

Images



All lanes : Anti-HDAC5 (phospho S498) antibody (ab47283) at 1/500 dilution

Lane 1 : Extracts from NIH/ 3T3 cells

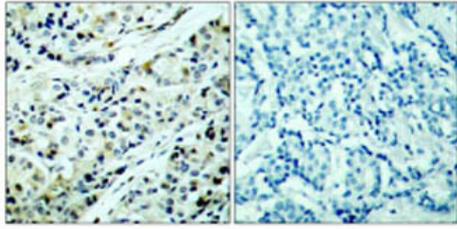
Lane 2 : Extracts from NIH/ 3T3 cells; ab47283 preincubated with immunising peptide (blocking)

Predicted band size: 122 kDa

Observed band size: 118 kDa

[why is the actual band size different from the predicted?](#)

Western blot - Anti-HDAC5 (phospho S498) antibody (ab47283)



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-HDAC5 (phospho S498) antibody (ab47283)

ab47283 (1/100) staining HDAC5 (phospho S498) in paraffin embedded human breast carcinoma tissue. For the right hand panel, ab47283 was pre-incubated with the immunizing peptide (blocking).

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