

HDAC3 Phospho Ser424 antibody (pAb)

Catalog Nos: 65722, 65922, 65723

RRID: AB_3216331

Application(s): DB, WB

Reactivity: Human, Mouse

Quantities: 100 µg, 50 µg, 10 µg

Purification: Protein A Chromatography

Host: Rabbit

Isotype: IgG

Molecular Weight: 50 kDa

Background: HDAC3 (Histone Deacetylase 3) is a member of the class I mammalian histone deacetylases (HDACs) involved in regulating chromatin structure during transcription. These enzymes catalyze the removal of acetyl groups from lysine residues of histones and other cellular proteins. Lysine N-ε-acetylation is a dynamic, reversible and tightly regulated protein and histone modification that plays a major role in regulation of gene expression in various cellular functions. It consists of the transfer of an acetyl moiety from an acetyl coenzyme A to the ε-amino group of a lysine residue.

In vivo, acetylation is controlled by the antagonistic activities of histone acetyltransferases (HATs) and histone deacetylases (HDACs). The HDACs are grouped into four classes, on the basis of similarity to yeast counterparts: HDAC class I (HDAC1, HDAC2, HDAC3 and HDAC8), class II (HDAC4, HDAC5, HDAC6, HDAC7, 9 and 10), class III (SIRT1-7) and class IV (HDAC11).

By forming multi-protein complexes with the co-repressors SMRT and N-CoR, HDAC3 regulates the transcription of a plethora of genes. A growing list of non-histone proteins extends the role of HDAC3 beyond transcriptional repression. HDAC1, HDAC2 and HDAC3 are also ubiquitously expressed and can deacetylate both H3 and H4 in free histones or nucleosome substrate.

Immunogen: This HDAC3 antibody was raised against a synthetic peptide sequence phosphorylated at serine 424.

Buffer: Purified IgG in PBS with 30% glycerol and 0.035% sodium azide. Sodium azide is highly toxic.

Application Notes:

Applications Validated by Active Motif:

WB: 0.5 - 2 µg/ml

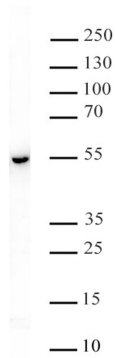
DB: 0.5 - 2 µg/ml

For optimal results, primary antibody incubations should be performed at room temperature. The addition of 0.05% Tween 20 to all blocking solutions may also reduce background. Individual optimization may be required.

For HDAC3, we also offer AbFlex® HDAC3 Recombinant Antibody (rAb). For details, see Catalog No. 91199.

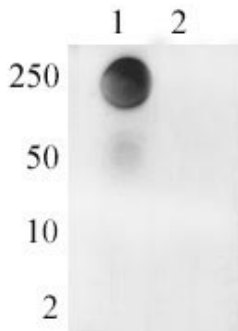
Storage and Guarantee: Some products may be shipped at room temperature. This will not affect their stability or performance. Avoid repeated freeze/thaw cycles by aliquoting items into single-use fractions for storage at -20°C for up to 2 years. Keep all reagents on ice when not in storage. This product is guaranteed for 12 months from date of receipt.

This product is for research use only and is not for use in diagnostic procedures.



HDAC3 Phospho Ser424 antibody (pAb) tested by Western blot.

Detection of HDAC3 by Western blot. The analysis was performed using 20 µg of HeLa whole cell extract and 0.5 µg/mL of HDAC3 Phospho Ser424 antibody (pAb). A protein band of approximate molecular weight of 50 kDa was detected.



HDAC3 Phospho Ser424 antibody (pAb) tested by dot blot.

Dot blot analysis was used to confirm the specificity of HDAC3 Phospho Ser424. Peptides corresponding to HDAC3 and phosphor-serine modified HDAC3 were spotted onto Nitrocellulose and probed with 65722 at 0.5 µg/mL. The amount of peptide (in picomoles) spotted is indicated next to each row.

Lane 1: HDAC3 pSer424.

Lane 2: Unmodified HDAC3.