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Rabbit Anti-phospho-HDAC5 (Ser498)antibody

SL10329R

Product Name	phospho-HDAC5 (Ser498)
Chinese Name	磷酸化组蛋白去乙酰化酶 5 抗体
Alias	HDAC5 (phospho S498); p-HDAC5 (phospho S498); HDAC5(Phospho-Ser498); HDAC5(Phospho-S498); p-HDAC5(Ser498); p-HDAC5(S498); Phospho-HDAC4(Ser632)/HDAC5(Ser498)/HDAC7(Ser486); HD 5; HD5; HDAC 5; Histone deacetylase 5; KIAA0600; NY CO 9; Antigen NY CO 9; FLJ90614; HDAC5_HUMAN; Antigen NY-CO-9.
Product Type	Phosphorylated anti
Research Area	Tumour Cell biology immunology Developmental biology Neurobiology Signal transduction transcriptional regulatory factor
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	Human, Mouse, (predicted: Rat, Chicken, Dog, Pig, Cow, Horse, Rabbit,)
Applications	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,Flow-Cyt=1ug/Test （Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Theoretical molecular weight	123kDa
Cellular localization	The nucleus cytoplasmic
Form	Liquid
Concentration	1mg/ml
immunogen	KLH conjugated synthesised phosphopeptide derived from human HDAC5 around the phosphorylation site of Ser498: TQ(p-S)SP
Lsotype	IgG
Purification	affinity purified by Protein A
Buffer	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.

Solution

Storage Shipped at 4℃. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.

Attention This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

PubMed PubMed

Product Detail

Histones play a critical role in transcriptional regulation, cell cycle progression, and developmental events. Histone acetylation/deacetylation alters chromosome structure and affects transcription factor access to DNA. The protein encoded by this gene belongs to the class II histone deacetylase/acuc/apha family. It possesses histone deacetylase activity and represses transcription when tethered to a promoter. It coimmunoprecipitates only with HDAC3 family member and might form multicomplex proteins. It also interacts with myocyte enhancer factor-2 (MEF2) proteins, resulting in repression of MEF2-dependent genes. This gene is thought to be associated with colon cancer. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2008].

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.

Subunit:
Interacts with AHRR. Interacts with BAHD1, BCOR, HDAC7, HDAC9, CTBP1, MEF2C, NCOR2, NRIP1, PHB2 and a 14-3-3 chaperone protein. Interacts with KDM5B. Interacts with MYOC. Interacts with GRK5. Interacts with DDIT3/CHOP.

Subcellular Location:
Nucleus. Cytoplasm. Note=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 AMPK, CaMK1 and SIK1.

Tissue Specificity:
Ubiquitous.

Post-translational modifications:
Phosphorylated by AMPK, CaMK1, SIK1 and PRKD1 at Ser-259 and Ser-498. The phosphorylation is required for the export to the cytoplasm and inhibition. Phosphorylated by the PKC kinases PKN1 and PKN2, impairing nuclear import. Phosphorylated by

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GRK5, leading to nuclear export of HDAC5 and allowing MEF2-mediated transcription. Ubiquitinated. Polyubiquitination however does not lead to its degradation.

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

SWISS:
Q9UQL6

Gene ID:
10014

Database links:

Entrez Gene: 10014 Human

Entrez Gene: 15184 Mouse

Entrez Gene: 84580 Rat

Omim: 605315 Human

SwissProt: Q9UQL6 Human

SwissProt: Q9Z2V6 Mouse

Unigene: 438782 Human

Unigene: 22665 Mouse

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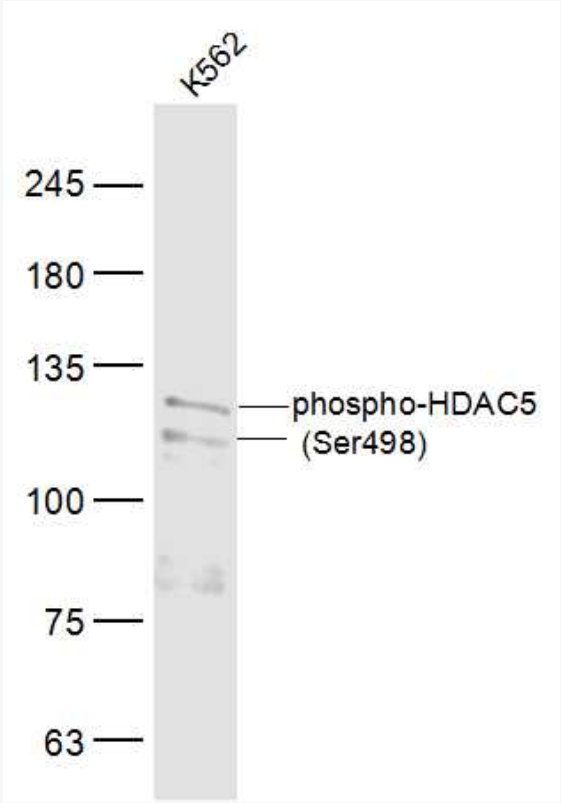
Product Picture



Sample:

K562(Human) Cell Lysate at 30 ug

Primary: Anti-phospho-HDAC5 (Ser498) (SL10329R) at 1/300 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 123 kD

Observed band size: 123/112 kD

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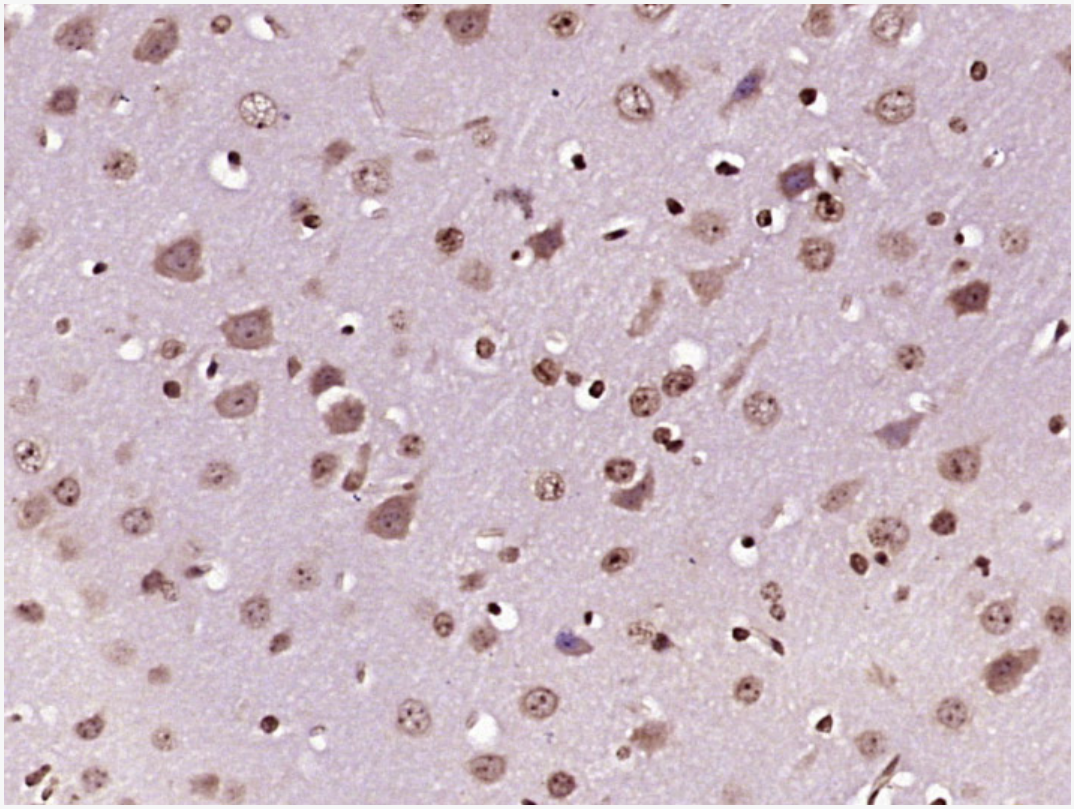
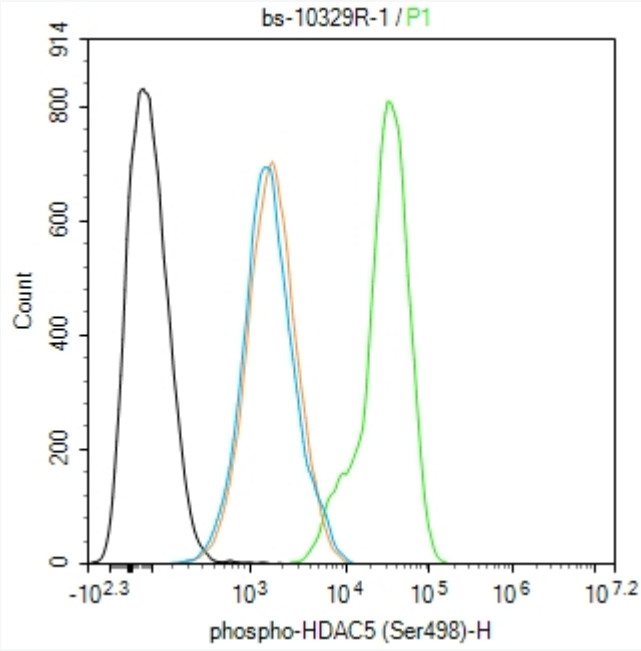


Paraformaldehyde-fixed, paraffin embedded (mouse brain tissue); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (HDAC5 (Ser498)) Polyclonal Antibody, Unconjugated (SL10329R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.



Blank control（black line）:Hela.

Primary Antibody (green line): Rabbit Anti-phospho-HDAC5 (Ser498) antibody (SL10329R)

Dilution:1ug/Test;

Secondary Antibody（white blue line）: Goat anti-rabbit IgG-AF488

Dilution: 0.5ug/Test.

Isotype control（orange line）: Normal Rabbit IgG

Protocol

The cells were fixed with 4% PFA (10min at room temperature)and then permeabilized with 90% ice-cold methanol for 20 min at -20℃, The cells were then incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at room temperature .Cells stained with Primary Antibody for 30 min at room

temperature. The secondary antibody used for 40 min at room temperature.

Acquisition of 20,000 events was performed.