abcam

Product datasheet

Recombinant human HDAC9 protein ab80350

2 Images

Description

Product name	Recombinant human HDAC9 protein
Biological activity	Specific Activity: >1000 U/ug. One U =1pmol/min. Assay condition: 25 mM Tris/Cl, pH8.0, 137 mM NaCl, 2.7 mM KCl, 1 mM $MgCl_2$, and 0.1 mg/ml BSA, 20 uM BPS HDAC substrate, and 0.2 ng/ul HDAC9. Incubation condition: 30 min at 37ºC.
Purity	> 95 % SDS-PAGE. Affinity purified.
Expression system	Baculovirus infected Sf9 cells
Protein length	Protein fragment
Animal free	No
Nature	Recombinant
Species	Human
Amino acids	604 to 1066

Specifications

Our **Abpromise guarantee** covers the use of **ab80350** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications	Functional Studies SDS-PAGE
Form	Liquid

Preparation and Storage

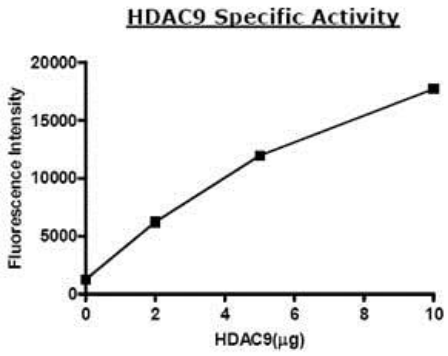
Stability and Storage	Shipped on Dry Ice. Upon delivery aliquot. Store at -80°C. Avoid freeze / thaw cycle. pH: 8.00 Constituents: 0.395% Tris HCl, 0.05% Tween, 50% Glycerol (glycerin, glycerine), 0.8004% Sodium chloride This product is an active protein and may elicit a biological response in vivo, handle with caution.

General Info

General info

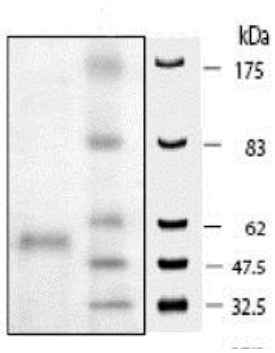
Function	Responsible for the deacetylation of lysine residues on the N-terminal part of the core histones (H2A, H2B, H3 and H4). Histone deacetylation gives a tag for epigenetic repression and plays an important role in transcriptional regulation, cell cycle progression and developmental events. Represses MEF2-dependent transcription. Isoform 3 lacks active site residues and therefore is catalytically inactive. Represses MEF2-dependent transcription by recruiting HDAC1 and/or HDAC3. Seems to inhibit skeletal myogenesis and to be involved in heart development. Protects neurons from apoptosis, both by inhibiting JUN phosphorylation by MAPK10 and by repressing JUN transcription via HDAC1 recruitment to JUN promoter.
Tissue specificity	Broadly expressed, with highest levels in brain, heart, muscle and testis. Isoform 3 is present in human bladder carcinoma cells (at protein level).
Involvement in disease	Note=A chromosomal aberration involving HDAC9 is found in a family with Peters anomaly. Translocation t(1;7)(q41;p21) with TGFB2 resulting in lack of HDAC9 protein.
Sequence similarities	Belongs to the histone deacetylase family. HD type 2 subfamily.
Post-translational modifications	Phosphorylated on Ser-220 and Ser-450; which promotes 14-3-3-binding, impairs interaction with MEF2, and antagonizes antimyogenic activity. Phosphorylated on Ser-240; which impairs nuclear accumulation (By similarity). Isoform 7 is phosphorylated on Tyr-1010. Phosphorylated by the PKC kinases PKN1 and PKN2, impairing nuclear import. Sumoylated.
Cellular localization	Nucleus.

Images



Functional Studies - Recombinant human HDAC9 protein (ab80350)

Image showing specific activity of ab80350.



SDS-PAGE - Recombinant human HDAC9 protein (ab80350)

10% SDS-PAGE showing ab80350 at approximately 50.7kDa (3µg).

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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