abcam

Product datasheet

Recombinant human HDAC9 protein (Active) ab268620

2 Images

Description

Product name	Recombinant human HDAC9 protein (Active)
Biological activity	The specific activity of ab268620 was determined to be 205 RLU/min/mg in a histone deacetylase assay using HDAC9 substrate.
Purity	> 80 % Densitometry. Densitometry was followed by affinity column that resulted with >95% purity of protein.
Expression system	Baculovirus infected Sf9 cells
Accession	**Q9UKV0**
Protein length	Protein fragment
Animal free	No
Nature	Recombinant
Species	Human
Sequence	KEEPVDSDEDAQIQEMESGEQAAFMQQPFLEPTHTRALS VRQAPLAAVGM DGLEKHRLVSRTHSSPAASVLPHPAMDRPLQPGSATGIA YDPLMLKHQCV CGNSTTHPEHAGRIQSIWSRLQETGLLNKCERIQGRKASL EEIQLVHSEH HSLLYGTNPLDGQKLDPRILLGDDSQKFFSSLPCGGLGVD SDTIWNELHS SGAARMAVGCVIELASKVASGELKNGFAVVRPPGHHAEE STAMGFCFFNS VAITAKYLRDQLNISKILIVDLDVHHGNGTQQAFYADPSILYIS LHRYDE GNFFPGSGAPNEVGTGLGEGYNINIAWTGGLDPPMGDVE YLEAFRTIVKP VAKEFDPDMVLVSAGFDALEGHTPPLGGYKVTAKCFGHL TKQLMTLADGR VVLALEGGHDLTAICDASEACVNALLGNELEPLAEDILHQ SPNMNAVISL QKIIEIQSMSLKFS
Molecular weight information	SDS-PAGE molecular weight: ~77kDa
Amino acids	548 to 1011
Tags	GST tag N-Terminus

Additional sequence information	GenBank: NM_058176

Specifications

Our **Abpromise guarantee** covers the use of **ab268620** 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

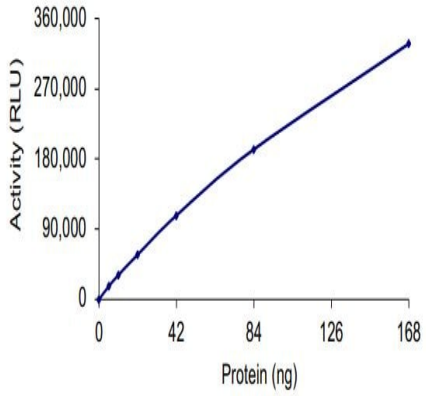
Preparation and Storage

Stability and Storage	Shipped on Dry Ice. Upon delivery aliquot. Store at -80°C. Avoid freeze / thaw cycle. pH: 7.5 Constituents: 0.79% Tris HCl, 0.87% Sodium chloride, 0.31% Glutathione, 0.003% EDTA, 0.004% DTT, 0.002% PMSF, 25% Glycerol This product is an active protein and may elicit a biological response in vivo, handle with caution.

General Info

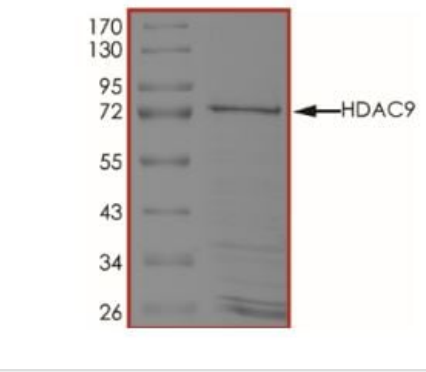
Function	Responsible for the deacetylation of lysine residues on the N-terminal part of the core histones (H2A, H2B, H3 and H4). Histone deacetylation gives a tag for epigenetic repression and plays an important role in transcriptional regulation, cell cycle progression and developmental events. Represses 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 (Active) (ab268620)

The specific activity of ab268620 was determined to be 205 RLU/min/mg in a histone deacetylase assay using HDAC9 substrate.



SDS-PAGE - Recombinant human HDAC9 protein (Active) (ab268620)

SDS-PAGE analysis of ab268620.

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

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