abcam

Product datasheet

Recombinant human HDAC2 protein ab42630

Description

Product name	Recombinant human HDAC2 protein
Biological activity	Activity: 1100 U/ug. One U =1 pmol/min, Assay condition: 25 mM Tris/Cl, pH8.0, 137 mM NaCl, 2.7 mM KCl, 1 mM MgCl2, and 0.1 mg/ml BSA, 100 uM Biomol substrate (Catalog number KI177), and 0.5 ng/ul HDAC2. Incubation condition: 20 min at 30 ºC.
Purity	> 70 % SDS-PAGE. Affinity purified.
Expression system	Baculovirus infected Sf9 cells
Protein length	Full length protein
Animal free	No
Nature	Recombinant
Species	Human

Specifications

Our **Abpromise guarantee** covers the use of **ab42630** in the following tested applications.

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

Applications	Inhibition Assay
Form	Liquid
Additional notes	Expressed in a Baculovirus infected Sf9 cell expression system.

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: 0.614% Glutathione, 0.79% Tris HCl, 10% 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

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. Forms transcriptional repressor complexes by associating with MAD, SIN3, YY1 and N-COR. Interacts in the late S-phase of DNA-replication with DNMT1 in the other transcriptional repressor complex composed of DNMT1, DMAP1, PCNA, CAF1. Deacetylates TSHZ3 and regulates its transcriptional repressor activity.
Tissue specificity	Widely expressed; lower levels in brain and lung.
Sequence similarities	Belongs to the histone deacetylase family. HD type 1 subfamily.
Post-translational modifications	S-nitrosylated by GAPDH. In neurons, S-Nitrosylation at Cys-262 and Cys-274 does not affect the enzyme activity but abolishes chromatin-binding, leading to increases acetylation of histones and activate genes that are associated with neuronal development. In embryonic cortical neurons, S-Nitrosylation regulates dendritic growth and branching.
Cellular localization	Nucleus.

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