

Recombinant HDAC7 (518-991) protein

Catalog No: 31535, 31935

Lot No: 17916001

Expressed In: Baculovirus

Quantity: 20 µg

Concentration: 0.2 µg/µl

Source: Human

Buffer Contents: Recombinant HDAC7 (518-991) protein is supplied at a concentration of 0.2 µg/µl in 25 mM HEPES pH 7.5, 300 mM NaCl, 5% Glycerol, 0.04% Triton X-100, 0.2 mM TCEP.

Background: HDAC7 (Histone Deacetylase 7) is a member of the class IIa 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).

HDAC7 is involved in muscle maturation by repressing transcription of myocyte enhancer factors such as MEF2A, MEF2B and MEF2C. During muscle differentiation, it shuttles into the cytoplasm, allowing the expression of myocyte enhancer factors (By similarity). HDAC7 may be involved in Epstein-Barr virus (EBV) latency, possibly by repressing the viral BZLF1 gene. HDAC7 positively regulates the transcriptional repressor activity of FOXP3.

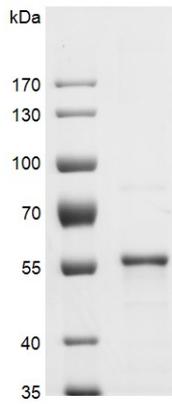
Protein Details: Recombinant HDAC7 (518-991) protein that includes amino acids 518-991 of human HDAC7 protein (accession number NP_056216.2) was expressed in Sf9 cells and contains an N-terminal FLAG tag with a molecular weight of 54.1 kDa. The purity of HDAC7 protein is >85% by SDS-PAGE.

Application Notes: This protein is useful for the study of enzyme kinetics, screening inhibitors, and selectivity profiling.

Storage and Guarantee: Recombinant proteins in solution are temperature sensitive and must be stored at -80°C to prevent degradation. Avoid repeated freeze/thaw cycles and keep on ice when not in storage. This product is guaranteed for 6 months from date of receipt.

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

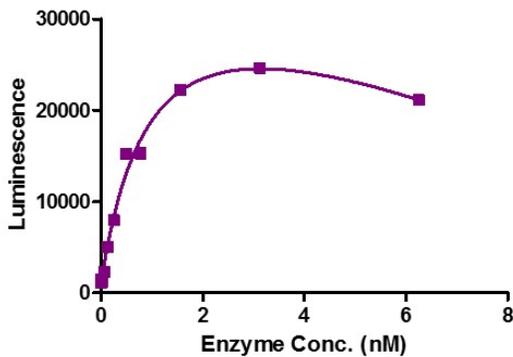
HDAC7 (518-991)



Recombinant HDAC7 (518-991) protein gel.

HDAC7 (518-991) protein was run on an 8% SDS-PAGE gel and stained with Coomassie Blue.

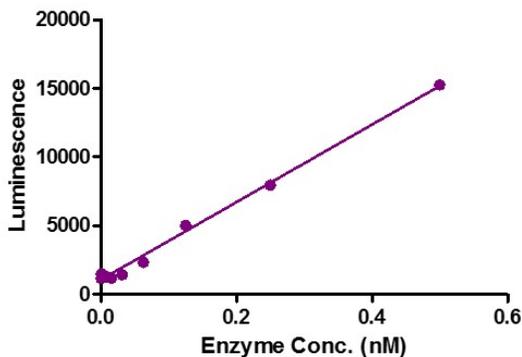
HDAC7 (518-991) Titration



HDAC-GloTM Class IIa Assay for HDAC7 activity

Assay was performed using HDAC-GloTM Class IIa Assay from Promega. 3.5 μ M substrate was incubated with HDAC7 proteins and 1/20000 developer reagent at room temperature, then luminescence was detected after incubation for 20 min.

HDAC7 (518-991) Titration



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