

# Datasheet for ABIN7554066 **HDAC6 Protein (AA 1-1215) (His tag)**



### Overview

Quantity:	1 mg
Target:	HDAC6
Protein Characteristics:	AA 1-1215
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This HDAC6 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS)

Purpose:	Custom-made recombinat HDAC6 Protein expressed in mammalien cells.
Sequence:	MTSTGQDSTT TRQRRSRQNP QSPPQDSSVT SKRNIKKGAV PRSIPNLAEV KKKGKMKKLG
	QAMEEDLIVG LQGMDLNLEA EALAGTGLVL DEQLNEFHCL WDDSFPEGPE RLHAIKEQLI
	QEGLLDRCVS FQARFAEKEE LMLVHSLEYI DLMETTQYMN EGELRVLADT YDSVYLHPNS
	YSCACLASGS VLRLVDAVLG AEIRNGMAII RPPGHHAQHS LMDGYCMFNH VAVAARYAQQ
	KHRIRRVLIV DWDVHHGQGT QFTFDQDPSV LYFSIHRYEQ GRFWPHLKAS NWSTTGFGQG
	QGYTINVPWN QVGMRDADYI AAFLHVLLPV ALEFQPQLVL VAAGFDALQG DPKGEMAATP
	AGFAQLTHLL MGLAGGKLIL SLEGGYNLRA LAEGVSASLH TLLGDPCPML ESPGAPCRSA
	QASVSCALEA LEPFWEVLVR STETVERDNM EEDNVEESEE EGPWEPPVLP ILTWPVLQSR
	TGLVYDQNMM NHCNLWDSHH PEVPQRILRI MCRLEELGLA GRCLTLTPRP ATEAELLTCH
	SAEYVGHLRA TEKMKTRELH RESSNFDSIY ICPSTFACAQ LATGAACRLV EAVLSGEVLN
	GAAVVRPPGH HAEQDAACGF CFFNSVAVAA RHAQTISGHA LRILIVDWDV HHGNGTQHMF

EDDPSVLYVS LHRYDHGTFF PMGDEGASSQ IGRAAGTGFT VNVAWNGPRM GDADYLAAWH RLVLPIAYEF NPELVLVSAG FDAARGDPLG GCQVSPEGYA HLTHLLMGLA SGRIILILEG GYNLTSISES MAACTRSLLG DPPPLLTLPR PPLSGALASI TETIQVHRRY WRSLRVMKVE DREGPSSSKL VTKKAPQPAK PRLAERMTTR EKKVLEAGMG KVTSASFGEE STPGQTNSET AVVALTQDQP SEAATGGATL AQTISEAAIG GAMLGQTTSE EAVGGATPDQ TTSEETVGGA ILDQTTSEDA VGGATLGQTT SEEAVGGATL AQTTSEAAME GATLDQTTSE EAPGGTELIQ TPLASSTDHQ TPPTSPVQGT TPQISPSTLI GSLRTLELGS ESQGASESQA PGEENLLGEA AGGQDMADSM LMQGSRGLTD QAIFYAVTPL PWCPHLVAVC PIPAAGLDVT QPCGDCGTIQ ENWVCLSCYQ VYCGRYINGH MLQHHGNSGH PLVLSYIDLS AWCYYCQAYV HHQALLDVKN IAHQNKFGED MPHPH Sequence without tag. The proposed Purification-Tag is based on experiences with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.

#### Characteristics:

Key Benefits:

- Made to order protein from design to production by highly experienced protein experts.
- Protein expressed in mammalien cells and purified in one-step affinity chromatography
- The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins.
- State-of-the-art algorithm used for plasmid design (Gene synthesis).

This protein is a made-to-order protein and will be made for the first time for your order. Our experts in the lab try to ensure that you receive soluble protein.

If you are not interested in a full length protein, please contact us for individual protein fragments.

The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.

Purity:

> 90 % as determined by Bis-Tris Page, Western Blot

Grade:

custom-made

#### **Target Details**

Target:	HDAC6
Alternative Name:	HDAC6 (HDAC6 Products)
Background:	Histone deacetylase 6 (HD6) (EC 3.5.1.98) (Protein deacetylase HDAC6) (EC 3.5.1) (Tubulin-

lysine deacetylase HDAC6) (EC 3.5.1.-), FUNCTION: Responsible for the deacetylation of lysine residues on the N-terminal part of the core histones (H2A, H2B, H3 and H4) (PubMed:10220385). Histone deacetylation gives a tag for epigenetic repression and plays an important role in transcriptional regulation, cell cycle progression and developmental events (PubMed:10220385). Histone deacetylases act via the formation of large multiprotein complexes (PubMed:10220385). In addition to histones, deacetylates other proteins, such as CTTN, tubulin and SQSTM1 (PubMed:12024216, PubMed:20308065, PubMed:26246421, PubMed:31857589, PubMed:30538141). Plays a central role in microtubule-dependent cell motility by mediating deacetylation of tubulin (PubMed:12024216, PubMed:20308065, PubMed:26246421). Required for cilia disassembly, via deacetylation of alpha-tubulin (PubMed:17604723, PubMed:26246421). Promotes deacetylation of CTTN, leading to actin polymerization, promotion of autophagosome-lysosome fusion and completion of autophagy (PubMed:30538141). Involved in the MTA1-mediated epigenetic regulation of ESR1 expression in breast cancer (PubMed:24413532). Promotes odontoblast differentiation following IPO7mediated nuclear import and subsequent repression of RUNX2 expression (By similarity). In addition to its protein deacetylase activity, plays a key role in the degradation of misfolded proteins: when misfolded proteins are too abundant to be degraded by the chaperone refolding system and the ubiquitin-proteasome, mediates the transport of misfolded proteins to a cytoplasmic juxtanuclear structure called aggresome (PubMed:17846173). Probably acts as an adapter that recognizes polyubiquitinated misfolded proteins and target them to the aggresome, facilitating their clearance by autophagy (PubMed:17846173). {ECO:0000250|UniProtKB:Q9Z2V5, ECO:0000269|PubMed:10220385, ECO:0000269|PubMed:12024216, ECO:0000269|PubMed:17604723, ECO:0000269|PubMed:17846173, ECO:0000269|PubMed:20308065, ECO:0000269|PubMed:24413532, ECO:0000269|PubMed:26246421, ECO:0000269|PubMed:30538141, ECO:0000269|PubMed:31857589}.

Molecular Weight:

131.4 kDa

UniProt:

Q9UBN7

Pathways:

Intracellular Steroid Hormone Receptor Signaling Pathway, Regulation of Intracellular Steroid Hormone Receptor Signaling

#### **Application Details**

**Application Notes:** 

In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a

## **Application Details**

	guarantee though.
Restrictions:	For Research Use only
Handling	
Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months