# abcam

## Product datasheet

## Human HDAC8 ELISA Kit ab282872

重组 SimpleStep ELISA

5 图像

### 概述

精确度

回收率

产品名称 人HDAC8 ELISA试剂盒

检测方法 Colorimetric

样品	n	Mean	SD	CV%
Extract	8			1.9%

批次间

特定样本回收率

批次内

样品	n	Mean	SD	CV%
Extract	0			0%

样品类型 Cell Lysate

检测类型 Sandwich (quantitative)

灵敏度 3.5 pg/ml

范围 46.88 pg/ml - 3000 pg/ml

样品类型	平均%	范围
Cell Lysate	101	98% - 107%

检测时间 1h 30m

实验步骤 One step assay

种属反应性 与反应: Human

产品概述 Human HDAC8 ELISA kit (ab282872) is a single-wash 90 min sandwich ELISA designed for the

> quantitative measurement of Human HDAC8 protein in human cell and tissue extract samples. It uses our proprietary SimpleStep ELISA® technology. Quantitate Human HDAC8 with 3.5 pg/mL

sensitivity.

SimpleStep ELISA® technology employs capture antibodies conjugated to an affinity tag that is

recognized by the monoclonal antibody used to coat our SimpleStep ELISA® plates. This approach to sandwich ELISA allows the formation of the antibody-analyte sandwich complex in a single step, significantly reducing assay time. See the SimpleStep ELISA® protocol summary in the image section for further details. Our SimpleStep ELISA® technology provides several benefits:

- -Single-wash protocol reduces assay time to 90 minutes or less
- -High sensitivity, specificity and reproducibility from superior antibodies
- -Fully validated in biological samples
- -96-wells plate breakable into 12 x 8 wells strips

A 384-well SimpleStep ELISA® microplate (<u>ab203359</u>) is available to use as an alternative to the 96-well microplate provided with SimpleStep ELISA® kits.

HDAC8 (Histone deacetylase 8) is a nuclear enzyme 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. HDAC8 is also involved in the deacetylation of cohesin complex protein SMC3 regulating release of cohesin complexes from chromatin. Mouse and rat HDAC8 share 96% amino acid sequence identity with human HDAC8 protein.

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Pre-coated microplate (12 x 8 well strips)

平台

## 性能

#### 存放说明

#### Store at +4°C. Please refer to protocols.

组 <b>件</b>	1 x 96 tests
10X Human HDAC8 Capture Antibody	1 x 600µl
10X Human HDAC8 Detector Antibody	1 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml
50X Cell Extraction Enhancer Solution (ab193971)	1 x 1ml
5X Cell Extraction Buffer PTR (ab193970)	1 x 10ml
Antibody Diluent CPI2	1 x 6ml
Human HDAC8 Lyophilized Recombinant Protein	2 vials
Plate Seals	1 unit
Sample Diluent NS (ab193972)	1 x 12ml

组件	1 x 96 tests
SimpleStep Pre-Coated 96-Well Microplate (ab206978)	1 unit
Stop Solution	1 x 12ml
TMB Development Solution	1 x 12ml

功能 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. May play a role in

smooth muscle cell contractility.

组织特异性 Weakly expressed in most tissues. Expressed at higher level in heart, brain, kidney and pancreas

and also in liver, lung, placenta, prostate and kidney.

**序列相似性** Belongs to the histone deacetylase family. HD type 1 subfamily.

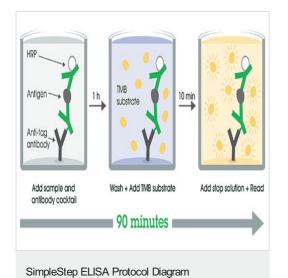
翻译后修饰 Phosphorylated by PKA on serine 39. Phosphorylation reduces deacetylase activity observed

preferentially on histones H3 and H4.

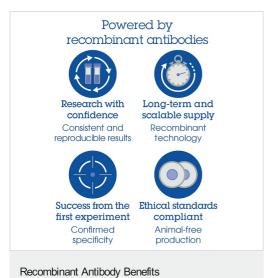
细胞定位 Nucleus. Cytoplasm. Excluded from the nucleoli. Found in the cytoplasm of cells showing smooth

muscle differentiation.

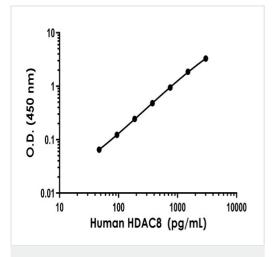
## 图片



SimpleStep ELISA technology allows the formation of the antibodyantigen complex in one single step, reducing assay time to 90 minutes. Add samples or standards and antibody mix to wells all at once, incubate, wash, and add your final substrate. See protocol for a detailed step-by-step guide.

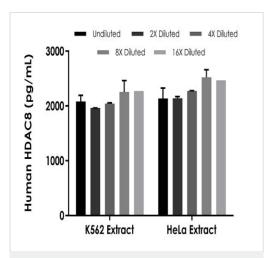


To learn more about the advantages of recombinant antibodies see **here**.



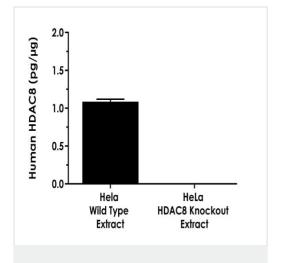
Example of human HDAC8 standard curve in 1X Cell Extraction Buffer PTR.

The HDAC8 standard curve was prepared as described in Section 10. Raw data values are shown in the table. Background-subtracted data values (mean +/- SD) are graphed.



Interpolated concentrations of native HDAC8 in human K562 cell and HeLa cell based on 250 µg/mL and 500 µg/mL extract loads, respectively.

The concentrations of HDAC8 were measured in duplicate and interpolated from the HDAC8 standard curve and corrected for sample dilution. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean HDAC8 concentration was determined to be 2,107 pg/mL in K562 extract and 2,289 pg/mL in HeLa extract.



Interpolated concentrations of native HDAC8 in human control wild type HeLa cell and HDAC8 knockout HeLa cell based on 400  $\mu$ g/mL extract loads.

The concentrations of HDAC8 were measured in duplicate and interpolated from the HDAC8 standard curve and expressing the interpolated concentrations as pg of protein per  $\mu g$  of extract (mean +/- SD, n=2). The mean HDAC8 concentration was determined to be 1.09 pg/ $\mu g$  in wild type HeLa extract and undetectable in HDAC8 knockout HeLa extract.

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