

# Anti-HDAC4 Rabbit mAb

Purified Recombinant Rabbit Monoclonal Antibody

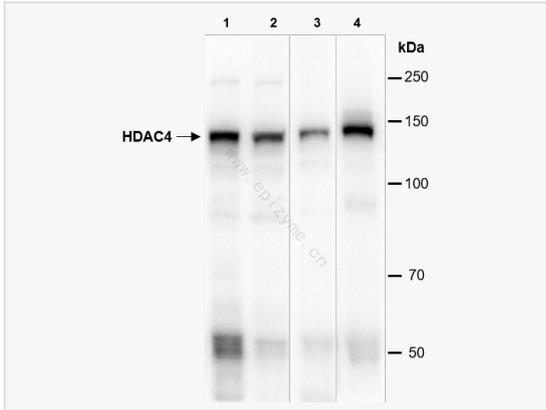
Catalog # R013809

## Product Information

Application	IF (Cell)/ICC, ELISA, WB, IHC-P/IF (Tissue-P)
Reactivity	Mouse, Rat, Human
Dilution	WB 1:1,000~1:2,000; IHC-P 1:100~1:200; IF 1:100~1:200
Host	Rabbit
Clonality	Monoclonal
Clone No.	53C01M23
Isotype	IgG
Label	Unconjugated
Immunogen	Recombinant protein of human HDAC4
Format	Affinity purified monoclonal antibody supplied in PBS with 0.01% sodium azide and 50% glycerol, pH 7.3.
Storage	Shipped on wet ice. Store at -20°C. Stable for 24 months from date of receipt. Aliquoting is unnecessary for -20°C storage.
Precautions	Anti-HDAC4 Rabbit mAb [53C01M23] is for research use only and not for use in diagnostic or therapeutic procedures.

## Protein Information

Synonyms	AHO3, BDMR, EC 3.5.1.98, HA6116, HD 4, HD4, HDAC 4, HDAC A, HDAC4, HDAC4_HUMAN, HDACA, Histone deacetylase 4, Histone Deacetylase A, KIAA0288.
Calculated MW	Calculated MW: 119 kDa; Observed MW: 140 kDa
Uniprot ID	P56524, Q6NZM9
Gene ID	9759, 208727
Background	Histones play a critical role in transcriptional regulation, cell cycle progression, and developmental events. Histone acetylation/deacetylation alters chromosome structure and affects transcription factor access to DNA. The protein encoded by this gene belongs to class II of the histone deacetylase/acuc/apha family. It possesses histone deacetylase activity and represses transcription when tethered to a promoter. This protein does not bind DNA directly, but through transcription factors MEF2C and MEF2D. It seems to interact in a multiprotein complex with RbAp48 and HDAC3. [provided by RefSeq, Jul 2008]
Cellular Location	Nucleus. Cytoplasm. Shuttles between the nucleus and the cytoplasm. Upon muscle cells differentiation, it accumulates in the nuclei of myotubes, suggesting a positive role of nuclear HDAC4 in muscle differentiation. The export to cytoplasm depends on the interaction with a 14-3-3 chaperone protein and is due to its phosphorylation at Ser-246, Ser-467 and Ser-632 by CaMK4. The nuclear localization probably depends on sumoylation.
Tissue Location	Ubiquitous.



Western Blot - Anti-HDAC4 Rabbit mAb [53C01M23]

All lanes: R013809 at 1:1,000 dilution

Lane 1: Jurkat (human T lymphocytic leukemia cell) whole cell lysates

Lane 2: HCT116 (human colorectal carcinoma epithelial cell) whole cell lysates

Lane 3: HepG2 (human hepatocellular carcinoma epithelial cell) whole cell lysates

Lane 4: Rat brain whole tissue lysates

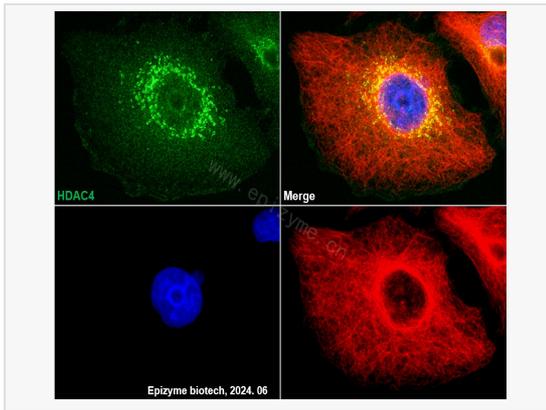
Lysates/proteins at 10 µg per lane.

Secondary antibody: Goat Anti-Rabbit IgG(H+L), HRP Conjugated (Cat. No. LF102) at 1:5,000 dilution

Predicted band size: 119 kDa

Observed band size: 140 kDa

Developed using the ECL technique (Cat. No. SQ201).



Immunofluorescence - Anti-HDAC4 Rabbit mAb [53C01M23]

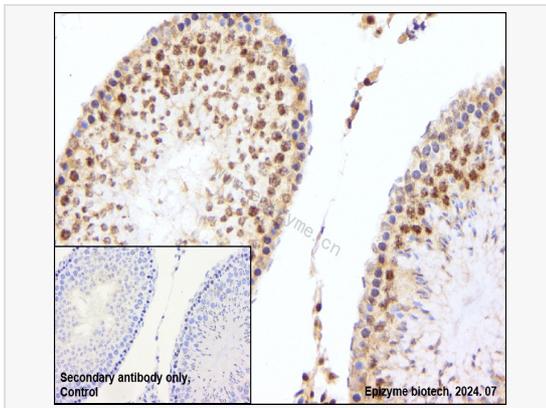
Sample: HeLa cells

The cells were fixed with 4% paraformaldehyde (10 min), permeabilized with 0.5% Triton X-100 for 10 minutes and then blocked with 5% BSA in 0.1% PBS-Tween for 0.5 hours.

Primary antibodies: R013809 at 1:50 dilution and  $\alpha$ -tubulin Mouse Monoclonal Antibody (Cat. No. LF209) at 1:50 dilution

Secondary antibodies: Goat anti-Rabbit (488) at 1:1,000 dilution (shown in green) and Goat anti-Mouse (555) at 1:1,000 dilution (shown in red)

Nuclei were stained with DAPI (shown in blue).



Immunohistochemistry - Anti-HDAC4 Rabbit mAb [53C01M23]

Sample: Paraformaldehyde-fixed, paraffin embedded rat testis tissue

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 30 mins.

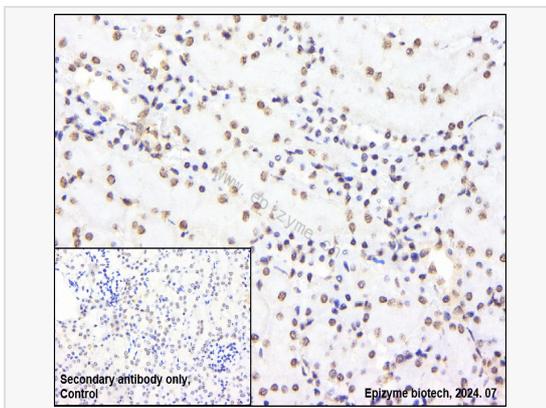
Primary antibody: R013809 at 1:200 dilution

Secondary antibody: Goat Anti-Rabbit IgG (H+L), HRP conjugated at 1:1,000 dilution  
DAB was used as the chromogen.

Counter stained with hematoxylin.

Positive/negative staining were presented.

Only the secondary antibody was used as the negative control.



Immunohistochemistry - Anti-HDAC4 Rabbit mAb [53C01M23]

Sample: Paraformaldehyde-fixed, paraffin embedded mouse kidney tissue

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 30 mins.

Primary antibody: R013809 at 1:200 dilution

Secondary antibody: Goat Anti-Rabbit IgG (H+L), HRP conjugated at 1:1,000 dilution  
DAB was used as the chromogen.

Counter stained with hematoxylin.

Positive/negative staining were presented.

Only the secondary antibody was used as the negative control.



Western Blot - Anti-HDAC4 Rabbit mAb [53C01M23]

All lanes: R013809 at 1:1,000 dilution

Lane 1: C2C12 (Mouse myoblasts epithelial cell) whole cell lysates

Lane 2: Raw264.7 (Mouse mononuclear macrophage leukemia cell) whole cell lysates

Lane 3: PC-12 (Rat adrenal pheochromocytoma epithelial cell) whole cell lysates

Lysates/proteins at 10  $\mu$ g per lane.

Secondary antibody: Goat Anti-Rabbit IgG(H+L), HRP Conjugated (Cat. No. LF102) at 1:5,000 dilution

Predicted band size: 119 kDa

Observed band size: 140 kDa

Developed using the ECL technique (Cat. No. SQ201).