

Basic Information

Product Name	Anti-HDAC3 Antibody
Gene Name	HDAC3
Source	Rabbit
Isotype	IgG
Species Reactivity	human, mouse, rat
Tested Application	WB, FCM, ELISA
Contents	500 ug/ml antibody with PBS , 0.02% NaN ₃ , 1 mg BSA and 50% glycerol.
Immunogen	E.coli-derived human HDAC3 recombinant protein (Position: M1-I428).
concentration	500 ug/ml
Purification	Immunogen affinity purified.
Observed MW	49KD
Dilution Ratios	Western blot(WB): 1:500-2000 Flow cytometry (FCM):1-3 µg/1x10 ⁶ cells ELISA: 1:100-1000

Storage

12 months from date of receipt, -20°C as supplied. 6 months 2 to 8°C after reconstitution. Avoid repeated freezing and thawing.

Background Information

HDAC3 (HISTONE DEACETYLASE 3) is a member of the histone deacetylase/acuc/apha family of proteins that is an enzyme that in humans is encoded by the HDAC3 gene. The HDAC3 gene is mapped to 5q31.3. HDAC3 has histone deacetylase activity and represses transcription when tethered to a promoter. It may participate in the regulation of transcription through its binding with the zinc-finger transcription factor YY1. The protein can also down-regulate p53 function and thus modulate cell growth and apoptosis. And this gene is regarded as a potential tumor suppressor gene. HDAC3 has an open reading frame of 428 amino acids and shares 53% amino acid identity with HDAC1 and 52% with HDAC2. The catalytic domain of HDAC4 interacts with HDAC3 via the transcriptional corepressor NCOR2. All experimental conditions leading to the suppression of HDAC4 binding to NCOR2 and to HDAC3 resulted in loss of enzymatic activity associated with HDAC4. HDAC3 recruitment to the genome displays a circadian rhythm in mouse liver.

Selected Validation Data

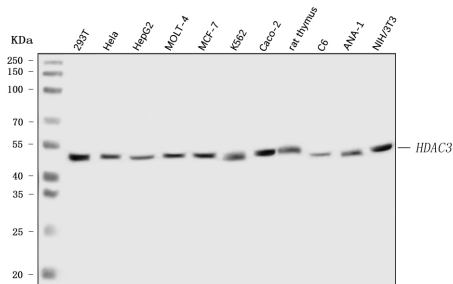


Figure 1. Western blot analysis of anti- HDAC3 antibody (A00839).

The sample well of each lane was loaded with 50ug of sample under reducing conditions.

Lane 1: human 293T whole cell lysates,

Lane 2: human Hela whole cell lysates,

Lane 3: human HepG2 whole cell lysates,

Lane 4: human MOLT-4 whole cell lysates,

Lane 5: human MCF-7 whole cell lysates,

Lane 6: human K562 whole cell lysates,

Lane 7: human Caco-2 whole cell lysates,

Lane 8: rat thymus tissue lysates,

Lane 9: C6 whole cell lysates,

Lane 10: ANA-1 whole cell lysates,

Lane 11: NIH/3T3 whole cell lysates.

Use rabbit anti- HDAC3 1:1000, probed with a goat anti-rabbit IgG-HRP secondary antibody. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002). A specific band was detected for HDAC3 at approximately 49KD. The expected band size for HDAC3 is at 49KD.

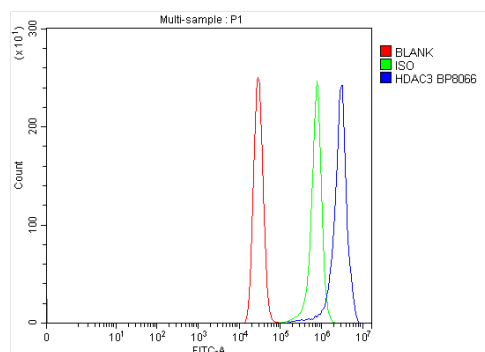


Figure 2. Flow cytometry analysis of MCF-7 cell (1x10⁶) DyLight 488 conjugated goat anti-rabbit IgG (blue) was used as secondary antibody. Isotype control antibody (Green line) was rabbit IgG DyLight 488. Unlabelled sample (Red line).