

DESCRIPTION

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|---------------------------|---|
| Species Reactivity | Human |
| Specificity | Detects human Histone Deacetylase 4/HDAC4 in direct ELISAs. |
| Source | Monoclonal Mouse IgG _{2A} Clone # 713802 |
| Purification | Protein A or G purified from hybridoma culture supernatant |
| Immunogen | <i>E. coli</i> -derived recombinant human Histone Deacetylase 4/HDAC4 Met1-Glu68 Accession # P56524 |
| Formulation | Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS. |

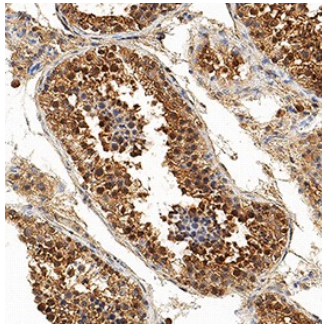
APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

| | Recommended Concentration | Sample |
|-----------------------------|----------------------------------|---------------|
| Immunohistochemistry | 5-25 µg/mL | See Below |

DATA

Immunohistochemistry



Histone Deacetylase 4/HDAC4 in Human Testis. Histone Deacetylase 4/HDAC4 was detected in immersion fixed paraffin-embedded sections of human testis using Mouse Anti-Human Histone Deacetylase 4/HDAC4 Monoclonal Antibody (Catalog # MAB6205) at 5 µg/mL for 1 hour at room temperature followed by incubation with the Anti-Mouse IgG VisUCyte™ HRP Polymer Antibody (Catalog # VC001). Tissue was stained using DAB (brown) and counterstained with hematoxylin (blue). Specific staining was localized to cytoplasm and nuclei of sperm cells. View our protocol for IHC Staining with VisUCyte HRP Polymer Detection Reagents.

PREPARATION AND STORAGE

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|--------------------------------|--|
| Reconstitution | Reconstitute at 0.5 mg/mL in sterile PBS. |
| Shipping | The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C |
| Stability & Storage | Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution. |

BACKGROUND

Histone Deacetylase 4 (HDAC4; also HD4) is a founding member of the class IIa subfamily, histone deacetylase family of transcriptional regulators. Although its predicted MW is 119 kDa, it runs anomalously at 140-150 kDa in SDS-PAGE which may be due to extensive phosphorylation plus SUMOylation. It has an N-terminal region that interacts with transcription factors and corepressors, and a C-terminal domain that shows deacetylase activity, thus repressing gene transcription. HDAC4 is found in osteoblasts, cardiac and skeletal muscle cells, and neurons. Human HDAC4 is 1084 amino acids (aa) in length. It contains one coiled-coil region (aa 67-177), a SUMOylation site at Lys559, a histone deacetylation domain (aa 665-993) and one NES (aa 1051-1084). Caspase cleavage after Asp289 generates bioactive 97 and 34 kDa fragments. There is one potential splice variant that shows an alternative start site at Met118 coupled to a five aa insertion after Thr431. Over aa 1-68, human HDAC4 shares 96% aa identity with mouse HDAC4.