RDsystems a biotechne brand

Human/Mouse/Rat Histone **Deacetylase 2/HDAC2 Antibody**

Antigen Affinity-purified Polyclonal Sheep IgG Catalog Number: AF7679

DESCRIPTION **Species Reactivity** Human/Mouse/Rat Specificity Detects human, mouse, and rat Histone Deacetylase 2/HDAC2 in Western blots. In direct ELISAs, less than 2% cross-reactivity with recombinant human HDAC1 is observed. Source Polyclonal Sheep IgG Purification Antigen Affinity-purified E. coli-derived recombinant human Histone Deacetylase 2/HDAC2 Immunogen Pro386-Pro488 Accession # Q92769 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

Western Blot

31.5 Rat-2 K562

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-HDAC2

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
Western Blot	0.1 µg/mL	See Below

DATA

kDa

250 150

100 75

50

37 -

25 -

20 —

15 10

Detection of Human, Mouse, and Rat Histone Deacetylase 2/HDAC2 by Western Blot. Western blot shows lysates of K562 human chronic myelogenous leukemia cell line, Rat-2 rat embryonic fibroblast cell line, and NIH-3T3 mouse embryonic fibroblast cell line. PVDF membrane was probed with 0.1 µg/mL of Sheep Anti-Human/Mouse/Rat Histone Deacetylase 2/HDAC2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF7679) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). A specific band was detected for Histone Deacetylase 2/HDAC2 at approximately 60 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Reconstitution	Sterile PBS to a final concentration of 0.2 mg/mL.	
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. 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

HDAC2 (Histone deacetylase 2; also HD2) is a 55-60 kDa nuclear member of the class I subfamily, histone deacetylase family of transcriptional regulators. It is found in a variety of cell types including monocytes, cardiac muscle cells and neurons. HDAC2 is also crucial for embryonic development. HDAC2 catalyzes the hydrolytic release of acetyl groups from acetylated histone proteins. Within the context of a large complex, this has the effect of repressing gene activity. Human HDAC2 is 488 amino acids (aa) in length. It contains one histone deacetylation domain (aa 29-388), plus sites for phosphorylation, nitrosylation, ubiquitination, and nitration. There is one alternative start site at Met31. Over aa 386-488, human HDAC2 shares 98% and 53% aa sequence identity with mouse HDAC2 and human HDAC1, respectively

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