

#### DESCRIPTION

<b>Species Reactivity</b>	Human/Mouse
<b>Specificity</b>	Detects human Histone Deacetylase 8/HDAC8 in Western blots.
<b>Source</b>	Polyclonal Sheep IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	<i>S. frugiperda</i> insect ovarian cell line Sf 21-derived recombinant human Histone Deacetylase 8/HDAC8 isoform 1 Met1-Val377 Accession # ACT64512
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with BSA as a carrier protein. See Certificate of Analysis for details.

#### 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.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Western Blot</b>	0.1 µg/mL	Recombinant Human Histone Deacetylase 8/HDAC8 (Catalog # 4359-DA)

#### PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.2 mg/mL in sterile PBS.	
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.	
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>• 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>• 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>• 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>	

#### BACKGROUND

Human Histone Deacetylase 8 (HDAC8) is a member of the class I Histone Deacetylases (HDACs) (1, 2). HDACs are important enzymes for the transcriptional regulation of gene expression in eukaryotic cells (3). HDACs catalyze the removal of acetyl groups from lysines near the N-termini of histones. Human HDACs have been implicated in a variety of human diseases such as cardiomyopathy, osteodystrophy, neurodegenerative disorders, aging and cancer (4). Expression of HDAC8 is restricted to cells showing smooth muscle differentiation in normal human tissue and is a novel marker of smooth muscle differentiation (5, 6). Like other class I and II HDAC members, the activity of HDAC8 is sensitive to HDAC inhibitor trichostatin A (1).

#### References:

1. Hu, E. *et al.* (2000) *J. Biol. Chem.* **275**:15254.
2. Annemieke, J *et al.* (2003) *Biochem. J.* **370**:737.
3. Gray, S. and T. Ekstrom (2001) *Exp. Cell Res.* **262**:75.
4. Yang, X. and S. Gregoire (2005) *Mol. Cell. Biol.* **25**:2873.
5. Waltregny, D. *et al.* (2004) *Am. J. Pathol.* **165**:553.
6. De Levak, L. *et al.* (2006) *Am. J. Surg. Pathol.* **30**:319.