

## Technical Data Sheet

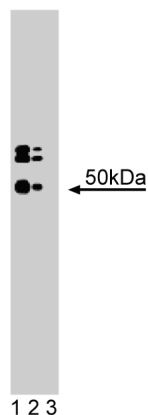
## Purified Mouse Anti-HDAC3

## Product Information

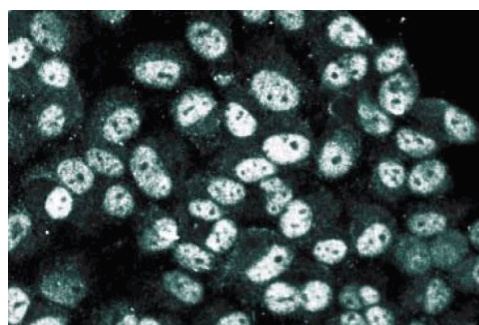
Material Number:	611124
Alternate Name:	Histone Deacetylase-3
Size:	50 µg
Concentration:	250 µg/ml
Clone:	40/HDAC3
Immunogen:	Human HDAC3 aa. 309-425
Isotype:	Mouse IgG1
Reactivity:	QC Testing: Human Tested in Development: Mouse, Rat, Dog
Target MW:	50 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

## Description

Regulation of gene expression occurs at multiple levels and is mediated by numerous factors. DNA-binding proteins such as histones function to spatially organize the DNA into chromatin. The spatial organization of chromatin is also important for gene expression, and modifications to DNA-binding proteins have profound effects on gene expression. Human Histone Deacetylase 3 (HDAC3) is a protein of approximately 50 kDa that removes acetyl groups from the ε-amino groups of lysines in histones, thus in competition with the acetylases. HDAC3 is the third member of this family of deacetylases, related to the yeast *RPD3* gene, which affect transcription of certain human genes. HDAC3 importance is reflected in its distribution in virtually every cell type examined. In *in vitro* assays, HDAC3 exhibited activity towards histones H3 and H4 acetylated *in vivo*. Furthermore, inhibitors of deacetylation, such as sodium butyrate, inhibited HDAC3 activity. Further studies will determine the specific role of HDAC3 in regulating gene expression.



Western blot analysis of HDAC3 on a human endothelial cell lysate. Lane 1: 1:500, lane 2: 1:1000, lane 3: 1:2000 dilution of the mouse anti-HDAC3 antibody.



Immunofluorescence staining of human endothelial cells.

## Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography. Store undiluted at -20° C.

## BD Biosciences

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## Application Notes

### Application

Western blot	Routinely Tested
Immunofluorescence	Tested During Development

### Recommended Assay Procedure:

**Western blot:** Please refer to [http://www.bdbiosciences.com/pharmingen/protocols/Western\\_Blotting.shtml](http://www.bdbiosciences.com/pharmingen/protocols/Western_Blotting.shtml)

### Suggested Companion Products

Catalog Number	Name	Size	Clone
611450	Human Endothelial Cell Lysate	500 µg	(none)
554002	HRP Goat Anti-Mouse Ig	1.0 ml	(none)
554001	FITC Goat Anti-Mouse Ig	0.5 mg	Polyclonal

### Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to [www.bdbiosciences.com/pharmingen/protocols](http://www.bdbiosciences.com/pharmingen/protocols) for technical protocols.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

### References

Emiliani S, Fischle W, Van Lint C, Al-Abed Y, Verdin E. Characterization of a human RPD3 ortholog, HDAC3. *Proc Natl Acad Sci U S A*. 1998; 95(6):2795-2800. (Biology)