

PRODUCT INFORMATION

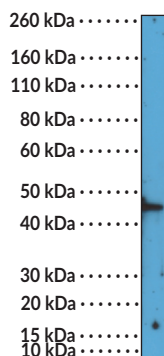
HDAC3 (C-Term) Rabbit Monoclonal Antibody (Clone RM439)

Item No. 35618

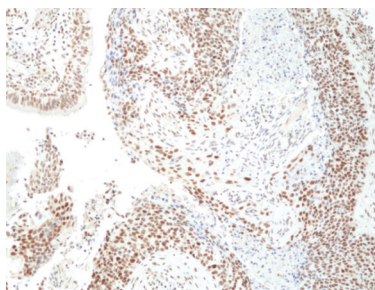
Overview and Properties

Contents:	This vial contains 100 µl of protein A-affinity purified monoclonal antibody.
Synonyms:	Histone Deacetylase 3, KDAC3, RPD3
Immunogen:	Peptide from the C-terminal region of human HDAC3
Cross Reactivity:	(+) HDAC3
Species Reactivity:	(+) Human
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	≥1 year
Storage Buffer:	PBS with 50% glycerol, 1% BSA, and 0.09% sodium azide
Clone:	RM439
Host:	Rabbit
Isotype:	IgG
Applications:	Immunohistochemistry (IHC) and Western blot (WB); the recommended starting dilution is 1:100-1:200 for IHC and 1:1,000-1:2,000 for WB. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

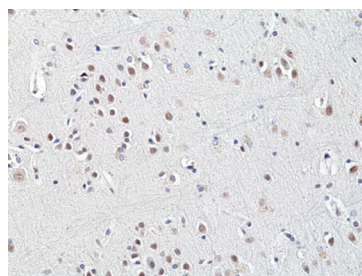
Images



WB of Jurkat cell lysate using HDAC3 (C-Term) Rabbit Monoclonal Antibody (Clone RM439) at a dilution of 1:1,000.



Immunohistochemical staining of formalin-fixed and paraffin-embedded human lung squamous carcinoma tissue using HDAC3 (C-Term) Rabbit Monoclonal Antibody (Clone RM439) at a dilution of 1:200.



Immunohistochemical staining of formalin-fixed and paraffin-embedded human brain cancer tissue using HDAC3 (C-Term) Rabbit Monoclonal Antibody (Clone RM439) at a dilution of 1:200.

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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Description

Histone deacetylase 3 (HDAC3) is a zinc-dependent metalloenzyme and class I HDAC.^{1,2} It is ubiquitously expressed and localizes primarily to the nucleus but also to the cytoplasm and plasma membrane. HDAC3 forms a complex with nuclear receptor co-repressor (NCOR) and silencing mediator of retinoic thyroid receptors (SMRT) to deacetylate histones and induce transcriptional repression and can be recruited to sites bound by activating transcription factor 2 (ATF2) without NCOR to induce inflammatory gene expression, indicating a role in transcriptional activation.^{2,3} HDAC3 activity is correlated with various diseases, including cancer, metabolic disorders, autoimmune disorders, neurodegenerative and CNS disorders, and cardiovascular disease.⁴ Cayman's HDAC3 (C-Term) Rabbit Monoclonal Antibody (Clone RM439) can be used for immunohistochemistry (IHC) and Western blot (WB) applications.

References

1. Huang, L. Targeting histone deacetylases for the treatment of cancer and inflammatory diseases. *J. Cell. Physiol.* **209**(3), 611-616 (2006).
2. Sarkar, R., Banerjee, S., Amin, S.A., *et al.* Histone deacetylase 3 (HDAC3) inhibitors as anticancer agents: A review. *Eur. J. Med. Chem.* **192**, 112171 (2020).
3. Nguyen, H.C.B., Adlanmerini, M., Hauck, A.K., *et al.* Dichotomous engagement of HDAC3 activity governs inflammatory responses. *Nature* **584**(7820), 286-290 (2020).
4. Adhikari, N., Jha, T., and Ghosh, B. Dissecting histone deacetylase 3 in multiple disease conditions: Selective inhibition as a promising therapeutic strategy. *J. Med. Chem.* **64**(13), 8827-8869 (2021).

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