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Produktinformation



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Lieferung & Zahlungsart

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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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PRODUCT INFORMATION



HDAC10 (human, recombinant)

Item No. 42085

Overview and Properties

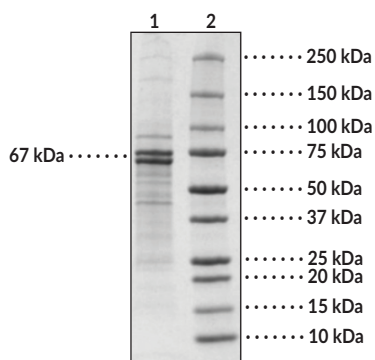
Synonym: Histone Deacetylase 10
Source: Recombinant human N-terminal DYKDDDDK-tagged HDAC10 expressed in insect cells
Amino Acids: 2-631
Uniprot No.: Q969S8
Molecular Weight: 67 kDa
Storage: -80°C (as supplied)
Stability: ≥6 months
Purity: ≥62% estimated by SDS-PAGE
Supplied in: 40 mM Tris-HCl, pH 8.0, with 110 mM sodium chloride, 2.2 mM potassium chloride, 0.04% Tween-20, 20% glycerol, and 90 µg/ml DYKDDDDK peptide

Protein

Concentration: *batch specific* mg/ml

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Image



Lane 1: HDAC10
Lane 2: MW Markers

SDS-PAGE Analysis of HDAC10. This protein has a calculated molecular weight of 67 kDa.

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
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PRODUCT INFORMATION



Description

Histone deacetylase 10 (HDAC10) is a zinc-dependent metalloenzyme and class IIb HDAC.¹ It is composed of an N-terminal catalytic domain and a C-terminal leucine-rich domain. HDAC10 is ubiquitously expressed and shuttles between the cytoplasm and nucleus.² It acts as a transcriptional corepressor and deacetylates histones and polyamines, such as N⁸-acetylspermidine.^{2,3} HDAC10 is involved in DNA damage repair, autophagy, and inflammation.⁴ Overexpression of *HDAC10* promotes proliferation of lung cancer cells *in vitro*, and knockout of *Hdac10* protects mice against allergic airway inflammation.^{5,6} SNPs in *HDAC10* have been found in patients with schizophrenia.⁷ Cayman's HDAC10 (human, recombinant) protein has a calculated molecular weight of 67 kDa.

References

1. Yang, X.J. and Grégoire, S. Class II histone deacetylases: From sequence to function, regulation, and clinical implication. *Mol. Cell. Biol.* **25(8)**, 2873-2884 (2005).
2. Kao, H.-Y., Lee, C.-H., Komarov, A., *et al.* Isolation and characterization of mammalian HDAC10, a novel histone deacetylase. *J. Biol. Chem.* **277(1)**, 187-193 (2002).
3. Hai, Y., Shinsky, S.A., Porter, N.J., *et al.* Histone deacetylase 10 structure and molecular function as a polyamine deacetylase. *Nat. Commun.* **8:15368**, (2017).
4. Cheng, F., Zheng, B., Wang, J., *et al.* Histone deacetylase 10, a potential epigenetic target for therapy. *Biosci. Rep.* **41(6)**, BSR20210462 (2021).
5. Yang, Y., Huang, Y., Wang, Z., *et al.* HDAC10 promotes lung cancer proliferation via AKT phosphorylation. *Oncotarget* **7(37)**, 59388-59401 (2016).
6. Zhong, Y., Huang, T., Huang, J., *et al.* The HDAC10 instructs macrophage M2 program via deacetylation of STAT3 and promotes allergic airway inflammation. *Theranostics* **13(11)**, 3568-3581 (2023).
7. Kebir, O., Chaumette, B., Fatjó-Vilas, M., *et al.* Family-based association study of common variants, rare mutation study and epistatic interaction detection in HDAC genes in schizophrenia. *Schizophr. Res.* **160(1-3)**, 97-103 (2014).