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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



SIRT7 (human, recombinant)

Item No. 10316 • Batch No. XXXX

Overview and Properties

Synonyms: NAD-dependent deacetylase 7, Silent Information Regulator 7, Sirtuin 7, SIR2L7, SIR2-like protein 7

Source: Recombinant human N-terminal hexahistidine-tagged enzyme expressed in *E. coli*

Amino Acids: 2-400 (full length)

Uniprot No.: Q9NRC8

Molecular Weight: 49.3 kDa

Storage: -80°C (as supplied)

Stability: ≥1 year

Purity: *batch specific* (≥35% estimated by SDS-PAGE)

Supplied in: 50 mM NaPO₄, pH 7.2, with 100 mM NaCl and 20% glycerol

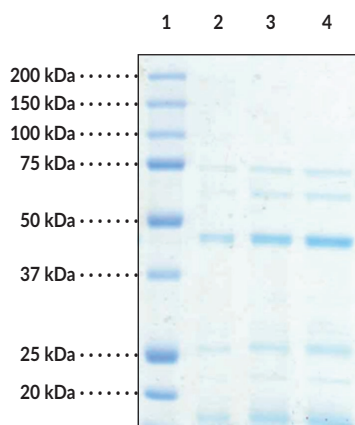
Protein Concentration: *batch specific*

Additional Information:

This protein has not been tested for enzyme activity.

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

Image



Lane 1: MW Markers
Lane 2: SIRT7 (2 μg)
Lane 3: SIRT7 (5 μg)
Lane 4: SIRT7 (10 μg)

Representative gel image shown; actual purity may vary between each batch.

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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PRODUCT INFORMATION



Description

The sirtuins represent a distinct class of trichostatin A-insensitive lysyl-deacetylases (class III HDACs) and have been shown to catalyze a reaction that couples lysine deacetylation to the formation of nicotinamide and O-acetyl-ADP-ribose from NAD⁺ and the abstracted acetyl group.¹⁻³ There are seven human sirtuins, which have been designated SIRT1-SIRT7.⁴ SIRT7 has been shown to activate transcription by RNA polymerase I and deacetylate p53.⁵ SIRT7 prevents progressive functional deterioration of the heart, and is suggested to play an important role in regulation of stress responses and cell death in the heart.⁶

References

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3. Tanny, J.C. and Moazed, D. Coupling of histone deacetylation to NAD breakdown by the yeast silencing protein Sir2: Evidence for acetyl transfer from substrate to an NAD breakdown product. *Proc. Natl. Acad. Sci. USA* **98(2)**, 415-420 (2001).
4. Frye, R.A. Phylogenetic classification of prokaryotic and eukaryotic Sir2-like proteins. *Biochem. Biophys. Res. Commun.* **273**, 793-798 (2000).
5. Lavu, S., Boss, O., Elliot, P.J., *et al.* Sirtuins-novel therapeutic targets to treat age-associated diseases. *Nature Reviews Drug Discovery* **7**, 841-853 (2008).
6. Vakhrusheva, O., Smolka, C., Gajawada, P., *et al.* Sirt7 increases stress resistance of cardiomyocytes and prevents apoptosis and inflammatory cardiomyopathy in mice. *Circ. Res.* **102**, 703-710 (2008).

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