



SZABO SCANDIC

Part of Europa Biosite

Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!



Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

V-ATPase H (m): 293T Lysate: sc-124526

BACKGROUND

Vacuolar-type H⁺-ATPase (V-ATPase) is a multisubunit enzyme responsible for acidification of eukaryotic intracellular organelles. V-ATPases pump protons against an electrochemical gradient, while F-ATPases reverse the process, thereby synthesizing ATP. A peripheral V₁ domain, which is responsible for ATP hydrolysis, and an integral V₀ domain, which is responsible for proton translocation, compose V-ATPase. Nine subunits (A-H) make up the V₁ domain and five subunits (a, d, c, c' and c'') make up the V₀ domain. Like F-ATPase, V-ATPase most likely operates through a rotary mechanism. The H subunit of V-ATPase, also designated SDF is comprised of two polypeptides derived from the same gene. This regulatory subunit plays a critical role in the functional coupling of ATP hydrolysis activity to proton transport in the V-ATPase pump.

REFERENCES

1. Lu, X., Yu, H., Liu, S.H., Brodsky, F.M. and Peterlin, B.M. 1998. Interactions between HIV1 Nef and vacuolar ATPase facilitate the internalization of CD4. *Immunity* 8: 647-656.
2. Geyer, M., Yu, H., Mandic, R., Linnemann, T., Zheng, Y.H., Fackler, O.T. and Peterlin, B.M. 2002. Subunit H of the V-ATPase binds to the medium chain of adaptor protein complex 2 and connects Nef to the endocytic machinery. *J. Biol. Chem.* 277: 28521-28529.
3. Geyer, M., Fackler, O.T. and Peterlin, B.M. 2002. Subunit H of the V-ATPase involved in endocytosis shows homology to β -Adaptins. *Mol. Biol. Cell* 13: 2045-2056.
4. Morel, N. 2003. Neurotransmitter release: the dark side of the vacuolar-H⁺-ATPase. *Biol. Cell* 95: 453-457.
5. Kawasaki-Nishi, S., Nishi, T. and Forgac, M. 2003. Proton translocation driven by ATP hydrolysis in V-ATPases. *FEBS Lett.* 545: 76-85.
6. Smith, A.N., Lovering, R.C., Futai, M., Takeda, J., Brown, D. and Karet, F.E. 2003. Revised nomenclature for mammalian vacuolar-type H⁺-ATPase subunit genes. *Mol. Cell.* 12: 801-803.
7. Online Mendelian Inheritance in Man, OMIM[™]. 2004. Johns Hopkins University, Baltimore, MD. MIM Number: 608861. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
8. Stove, V., Van de Walle, I., Naessens, E., Coene, E., Stove, C., Plum, J. and Verhasselt, B. 2005. Human immunodeficiency virus Nef induces rapid internalization of the T cell coreceptor CD8 $\alpha\beta$. *J. Virol.* 79: 11422-11433.
9. Fuster, D.G., Zhang, J., Xie, X.S. and Moe, O.W. 2008. The vacuolar-ATPase B1 subunit in distal tubular acidosis: novel mutations and mechanisms for dysfunction. *Kidney Int.* 73: 1151-1158.

CHROMOSOMAL LOCATION

Genetic locus: Atp6v1h (mouse) mapping to 1 A1.

PRODUCT

V-ATPase H (m): 293T Lysate represents a lysate of mouse V-ATPase H transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

APPLICATIONS

V-ATPase H (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive V-ATPase H antibodies. Recommended use: 10-20 μ l per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.