



V-ATPase G1 (m): 293 Lysate: sc-111266

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. In yeast, the V-ATPase G subunit is a soluble subunit that shares homology with the F-ATPase G subunit and may be part of a connection stalk between V₁ and V₀. The G₂ isoform of the G subunit associates with the pore-forming α1C-subunit of L-type calcium channel and aids in proper membrane targeting of the calcium channel. The genes encoding the G₁ and G₂ V-ATPase subunits map to chromosomes 9q32 and 6p21.33, respectively.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Atp6v1g1 (mouse) mapping to 4 C1.

RESEARCH USE

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

PRODUCT

V-ATPase G1 (m): 293 Lysate represents a lysate of mouse V-ATPase G1 transfected 293 cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

V-ATPase G1 (m): 293 Lysate is suitable as a Western Blotting positive control for mouse reactive V-ATPase G1 antibodies. Recommended use: 10-20 µl per lane.

Control 293 Lysate: sc-110760 is available as a Western Blotting negative control lysate derived from non-transfected 293 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.

PROTOCOLS

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