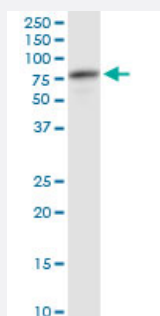


ATP6V1A monoclonal antibody (M02), clone 4F5

Catalog # H00000523-M02

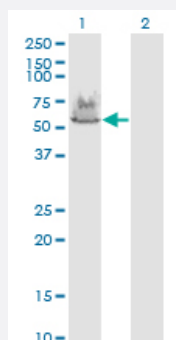
Size 100 ug

Applications



Western Blot (Tissue lysate)

ATP6V1A monoclonal antibody (M02), clone 4F5. Western Blot analysis of ATP6V1A expression in human kidney.

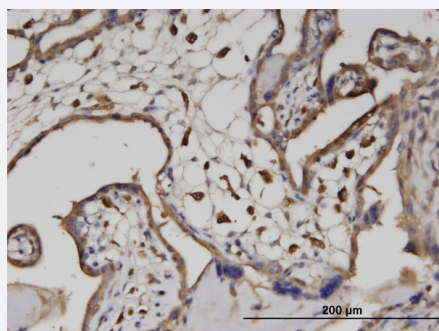


Western Blot (Transfected lysate)

Western Blot analysis of ATP6V1A expression in transfected 293T cell line by ATP6V1A monoclonal antibody (M02), clone 4F5.

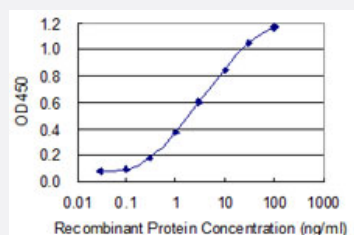
Lane 1: ATP6V1A transfected lysate (Predicted MW: 68.3 KDa).

Lane 2: Non-transfected lysate.



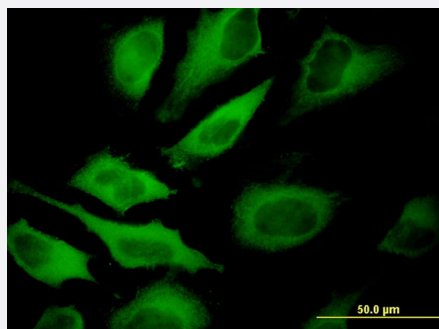
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)

Immunoperoxidase of monoclonal antibody to ATP6V1A on formalin-fixed paraffin-embedded human placenta. [antibody concentration 3 ug/ml]



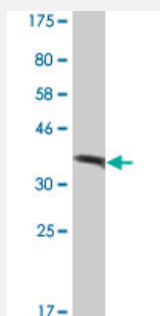
Sandwich ELISA (Recombinant protein)

Detection limit for recombinant GST tagged ATP6V1A is 0.03 ng/ml as a capture antibody.



Immunofluorescence

Immunofluorescence of monoclonal antibody to ATP6V1A on HeLa cell .
[antibody concentration 10 ug/ml]



Western Blot detection against Immunogen (37.84 KDa) .

Specification

Product Description	Mouse monoclonal antibody raised against a partial recombinant ATP6V1A.
Immunogen	ATP6V1A (NP_001681, 508 a.a. ~ 617 a.a) partial recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.
Sequence	TLEVAKLIKDDFLQQNGYTPYDRFCPFYKTVGMLSNMIAFYDMARRAVETTAQSDNKITWSIIREHM GDILYKLSSMKFKDPLKDGEAKIKSDYAQLLEDMQNAFRSLED
Host	Mouse
Reactivity	Human
Interspecies Antigen Sequence	Mouse (96); Rat (96)
Isotype	IgG1 Kappa
Quality Control Testing	Antibody Reactive Against Recombinant Protein. Western Blot detection against Immunogen (37.84 KDa) .
Storage Buffer	In 1x PBS, pH 7.4
Storage Instruction	Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.

Applications

- Western Blot (Tissue lysate)

ATP6V1A monoclonal antibody (M02), clone 4F5. Western Blot analysis of ATP6V1A expression in human kidney.

[Protocol Download](#)

- Western Blot (Transfected lysate)

Western Blot analysis of ATP6V1A expression in transfected 293T cell line by ATP6V1A monoclonal antibody (M02), clone 4F5.

Lane 1: ATP6V1A transfected lysate (Predicted MW: 68.3 KDa).

Lane 2: Non-transfected lysate.

[Protocol Download](#)

- Western Blot (Recombinant protein)

[Protocol Download](#)

- Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)

Immunoperoxidase of monoclonal antibody to ATP6V1A on formalin-fixed paraffin-embedded human placenta. [antibody concentration 3 ug/ml]

[Protocol Download](#)

- Sandwich ELISA (Recombinant protein)

Detection limit for recombinant GST tagged ATP6V1A is 0.03 ng/ml as a capture antibody.

[Protocol Download](#)

- ELISA

- Immunofluorescence

Immunofluorescence of monoclonal antibody to ATP6V1A on HeLa cell . [antibody concentration 10 ug/ml]

Gene Info — ATP6V1A

Entrez GeneID [523](#)

GeneBank Accession# [NM_001690](#)

Protein Accession# [NP_001681](#)

Gene Name	ATP6V1A
Gene Alias	ATP6A1, ATP6V1A1, HO68, VA68, VPP2, Vma1
Gene Description	ATPase, H ⁺ transporting, lysosomal 70kDa, V1 subunit A
Omim ID	607027
Gene Ontology	Hyperlink
Gene Summary	This gene encodes a component of vacuolar ATPase (V-ATPase), a multisubunit enzyme that mediates acidification of eukaryotic intracellular organelles. V-ATPase dependent organelle acidification is necessary for such intracellular processes as protein sorting, zymogen activation, receptor-mediated endocytosis, and synaptic vesicle proton gradient generation. V-ATPase is composed of a cytosolic V1 domain and a transmembrane V0 domain. The V1 domain consists of three A and three B subunits, two G subunits plus the C, D, E, F, and H subunits. The V1 domain contains the ATP catalytic site. The V0 domain consists of five different subunits: a, c, c', c'', and d. Additional isoforms of many of the V1 and V0 subunit proteins are encoded by multiple genes or alternatively spliced transcript variants. This encoded protein is one of two V1 domain A subunit isoforms and is found in all tissues. Transcript variants derived from alternative polyadenylation exist. [provided by RefSeq]
Other Designations	ATPase, H ⁺ transporting, lysosomal 70kD, V1 subunit A, isoform 1 ATPase, H ⁺ transporting, lysosomal, alpha polypeptide, 70kD, isoform 1 ATPase, H ⁺ transporting, lysosomal, subunit A1 H(+)-transporting two-sector ATPase, subunit A H+-transporting ATPase ch

Publication Reference

- [Ras-mutant cancers are sensitive to small molecule inhibition of V-type ATPases in mice.](#)

Bhairavi Tolani, Anna Celli, Yanmin Yao, Yong Zi Tan, Richard Fetter, Christina R Liem, Adam J de Smith, Thamiya Vasanthakumar, Paola Bisignano, Adam D Cotton, Ian B Seiple, John L Rubinstein, Marco Jost, Jonathan S Weissman.
Nature Biotechnology 2022 Dec; 40(12):1834.

Application: IF, Mouse, Embryonic fibroblasts

- [Neutral Sphingomyelinase 2 controls exosomes secretion via counteracting V-ATPase-mediated endosome acidification.](#)

Dolma Choezom, Julia Christina Gross.
Journal of Cell Science 2022 Mar; 135(5):jcs259324.

Application: WB, Human, HeLa cells

- [Plasma membrane V-ATPase controls oncogenic RAS-induced macropinocytosis.](#)

Ramirez C, Hauser AD, Vucic EA, Bar-Sagi D.
Nature 2019 Dec; 576(7787):477.

Application: IF, WB-Ce, WB-Tr, Human, HeLa cells

- [Extracellular and Luminal pH Regulation by Vacuolar H⁺-ATPase Isoform Expression and Targeting to the Plasma Membrane and Endosomes.](#)

Smith GA, Howell GJ, Phillips C, Muench SP, Ponnambalam S, Harrison MA.

The Journal of Biological Chemistry 2016 Apr; 291(16):8500.

Application: WB-Tr, Human, PC-3 cells

- [Actin filaments are involved in the coupling of V0-V1 domains of vacuolar H⁺-ATPase at the Golgi complex.](#)

Serra-Peinado C, Sicart A, Llopis J, Gustavo Egea G.

The Journal of Biological Chemistry 2016 Apr; 291(14):7286.

Application: WB-Ce, WB-Ti, Human, Rat, HeLa cells, Rat liver

Pathway

- [Epithelial cell signaling in Helicobacter pylori infection](#)
- [Metabolic pathways](#)
- [Oxidative phosphorylation](#)
- [Vibrio cholerae infection](#)