

Product datasheet

HRP Anti-alpha 1 Sodium Potassium ATPase antibody [464.6] ab196696

★★★★★ [1 Abreviews](#) [2 Images](#)

Overview

Product name	HRP Anti-alpha 1 Sodium Potassium ATPase antibody [464.6]
Description	HRP Mouse monoclonal [464.6] to alpha 1 Sodium Potassium ATPase
Host species	Mouse
Conjugation	HRP
Tested applications	Suitable for: WB, IHC-P
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Full length native protein (purified). This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: Human Brain, Mouse Brain and Rat Brain tissue lysates. IHC-P: Normal human kidney tissue.
General notes	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle. Store In the Dark.
Storage buffer	pH: 7.40 Preservative: 0.1% 10% Proclin 300 Solution Constituents: 30% Glycerol (glycerin, glycerine), 1% BSA, PBS
Purity	Affinity purified
Clonality	Monoclonal
Clone number	464.6
Isotype	IgG1

Light chain type

kappa

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab196696 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/5000. Detects a band of approximately 98 kDa (predicted molecular weight: 112 kDa). Abcam recommends using 5% BSA as the blocking agent.
IHC-P		1/500. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.

Target

Function

This is the catalytic component of the active enzyme, which catalyzes the hydrolysis of ATP coupled with the exchange of sodium and potassium ions across the plasma membrane. This action creates the electrochemical gradient of sodium and potassium ions, providing the energy for active transport of various nutrients.

Sequence similarities

Belongs to the cation transport ATPase (P-type) (TC 3.A.3) family. Type IIC subfamily.

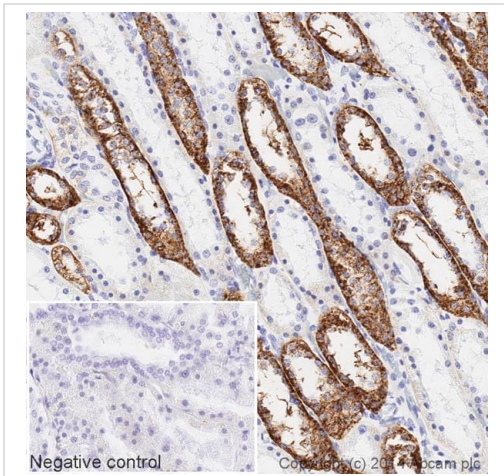
Post-translational modifications

Phosphorylation on Tyr-10 modulates pumping activity.

Cellular localization

Cell membrane. Melanosome. Identified by mass spectrometry in melanosome fractions from stage I to stage IV.

Images

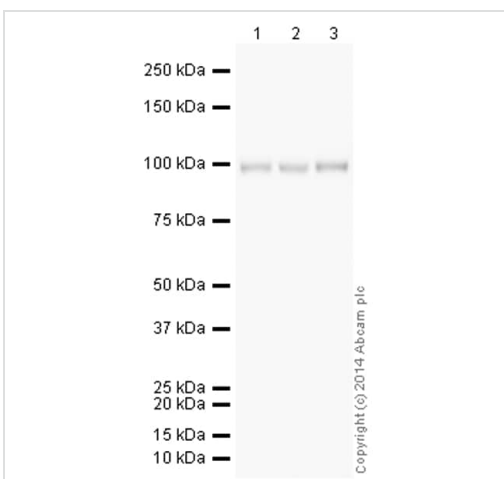


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - HRP Anti-alpha 1 Sodium Potassium ATPase antibody [464.6] (ab196696)

IHC image of alpha 1 Sodium Potassium ATPase staining in a section of formalin-fixed paraffin-embedded normal human kidney*, performed on a Leica BOND. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20mins. The section was then incubated with ab196696 at 1/500 dilution, for 15 mins at room temperature. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX. The inset negative control image is taken from an identical assay without primary antibody.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.

*Tissue obtained from the Human Research Tissue Bank, supported by the NIHR Cambridge Biomedical Research Centre



Western blot - HRP Anti-alpha 1 Sodium Potassium ATPase antibody [464.6] (ab196696)

All lanes : HRP Anti-alpha 1 Sodium Potassium ATPase antibody [464.6] (ab196696) at 1/5000 dilution

Lane 1 : Brain (Human) Tissue Lysate - adult normal tissue

Lane 2 : Brain (Mouse) Tissue Lysate

Lane 3 : Brain (Rat) Tissue Lysate

Lysates/proteins at 20 µg per lane.

Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 112 kDa

Observed band size: 98 kDa

Exposure time: 2 seconds

This blot was produced using a 4-12% Bis-tris gel under the MOPS buffer system. The gel was run at 200V for 50 minutes before being transferred onto a Nitrocellulose membrane at 30V for 70 minutes. The membrane was then blocked for an hour using 2% Bovine Serum Albumin before being incubated with ab196696 overnight at 4°C. Antibody binding was visualised using ECL development solution **ab133406**.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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