abcam

Product datasheet

Anti-SLC34A2 antibody [SP322] - BSA and Azide free ab238793

Recombinant RabMAb

12 Images

Overview

Product name	Anti-SLC34A2 antibody [SP322] - BSA and Azide free
Description	Rabbit monoclonal [SP322] to SLC34A2 - BSA and Azide free
Host species	Rabbit
Tested applications	**Suitable for:** Flow Cyt (Intra), IHC-P, ICC/IF, mIHC
Species reactivity	**Reacts with:** Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	IHC-P: Human lung adenocarcinoma, ovarian adenocarcinoma, endometrial adenocarcinoma, fallopian tube and uterus tissues. ICC/IF: NIH:OVCAR-3 cells. Flow Cyt: NIH:OVCAR-3 cells. mIHC: Human endometrium tissue.
General notes	ab238793 is the carrier-free version of **ab228474**. Our **carrier-free** antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications. Use our **conjugation kits** for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold. This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc. This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**. **This product is FOR RESEARCH USE ONLY. For commercial use, please contact**

partnerships@abcam.com.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Do Not Freeze.
Storage buffer	pH: 7.20 Constituent: PBS
Carrier free	Yes
Purity	Protein A/G purified
Purification notes	Purified from TCS by protein A/G.
Clonality	Monoclonal
Clone number	SP322
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab238793 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
Flow Cyt (Intra)		Use at an assay dependent concentration.
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval with EDTA buffer pH 8.0 before commencing with IHC staining protocol. Primary antibody incubation for 10 minutes at room temperature.
ICC/IF		Use at an assay dependent concentration.
mIHC		1/1000.

Target

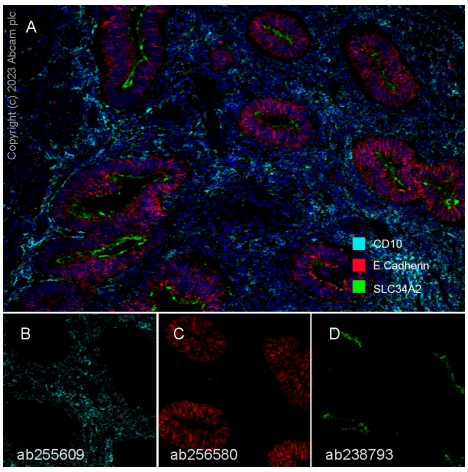
Function	May be involved in actively transporting phosphate into cells via Na(+) cotransport. It may be the main phosphate transport protein in the intestinal brush border membrane. May have a role in the synthesis of surfactant in lungs' alveoli.
Tissue specificity	Highly expressed in lung. Also detected in pancreas, kidney, small intestine, ovary, testis, prostate and mammary gland. In lung, it is found in alveolar type II cells but not in bronchiolar epithelium.
Involvement in disease	Defects in SLC34A2 are a cause of pulmonary alveolar microlithiasis (PALM) [MIM:265100]. Pulmonary alveolar microlithiasis is a rare disease characterized by the deposition of calcium phosphate microliths throughout the lungs. Most patients are asymptomatic for several years or even for decades and generally, the diagnosis is incidental to clinical investigations unrelated to the disease. Cases with early onset or rapid progression are rare. A 'sandstorm-appearing' chest

roentgenogram is a typical diagnostic finding. The onset of this potentially lethal disease varies from the neonatal period to old age and the disease follows a long-term, progressive course, resulting in a slow deterioration of lung functions. Pulmonary alveolar microlithiasis is a recessive monogenic disease with full penetrance.

Sequence similarities Belongs to the SLC34A transporter family.

Cellular localization Membrane.

Images



Multiplex immunohistochemistry - Anti-SLC34A2 antibody [SP322] - BSA and Azide free (ab238793)

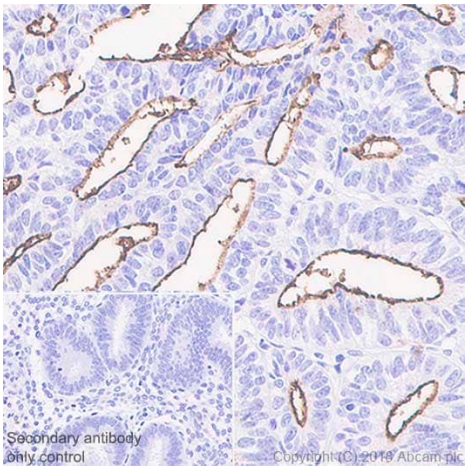
Fluorescence multiplex immunohistochemical analysis of the human endometrium (Formalin/PFA-fixed paraffin-embedded sections).

Panel A: merged staining of anti-E Cadherin (**ab256580**, red; Opal™690), anti-SLC34A2 (ab238793, green; Opal™520) and anti-CD10 (**ab255609**, cyan; Opal™570) on human endometrium. Panel B: anti-CD10 stained on stromal cells. Panel C: anti-E Cadherin stained on glandular cells. Panel D: anti-SLC34A2 stained on apical membrane of glandular cells. Opal Polymer HRP Ms + Rb was used as a secondary antibody.

The section was incubated in three rounds of staining: in the order of **ab256580** at 1/3000 dilution (0.324 µg/ml) for 30mins, ab238793 at 1/1000 dilution (2.26 µg/ml) for 10mins and **ab255609** at 1/1000 dilution (0.615 µg/ml) for 30 mins at room temperature. Each round was followed by a separate fluorescent tyramide signal amplification system.

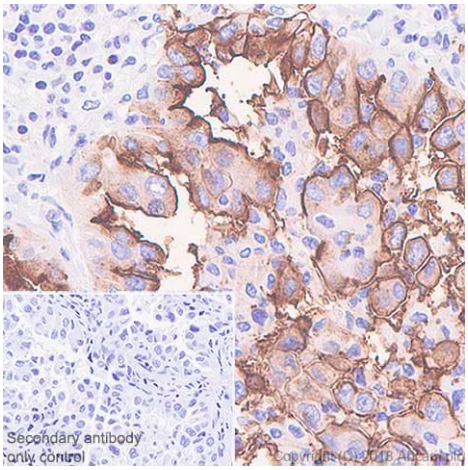
The immunostaining was performed on a Leica Biosystems BOND® RX instrument with an Opal™ 4-color kit. Image acquisition was performed with Leica SP8 confocal microscope.

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins. DAPI (blue) was used as a nuclear counter stain.



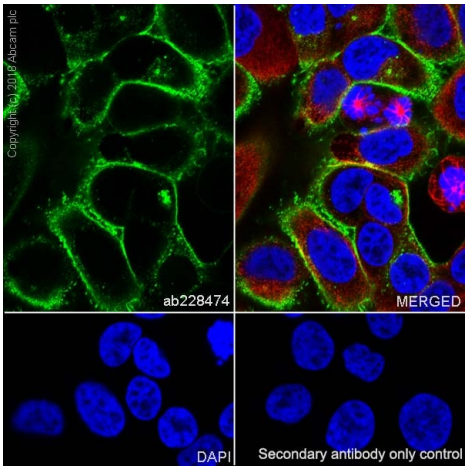
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SLC34A2 antibody [SP322] - BSA and Azide free (ab238793)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human endometrial carcinoma tissue sections labeling SLC34A2 with **ab228474** at 1/100 dilution (2.37 µg/ml). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 10mins. Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**) was used as the secondary antibody. Hematoxylin was used as a counterstain. Positive staining on the luminal surface of human endometrial carcinoma, performed on a Leica Biosystems BOND™ RX instrument.
The section was incubated with **ab228474** for 10 mins at room temperature. This image was generated using **ab228474**, the same clone, but with a different buffer formulation.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SLC34A2 antibody [SP322] - BSA and Azide free (ab238793)

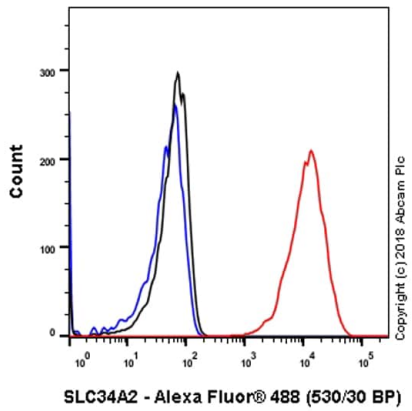
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human lung carcinoma tissue sections labeling SLC34A2 with **ab228474** at 1/100 dilution (2.37 µg/ml). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 10mins. Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**) was used as the secondary antibody. Hematoxylin was used as a counterstain. Positive staining on the human lung carcinoma, performed on a Leica Biosystems BOND™ RX instrument.
The section was incubated with **ab228474** for 10 mins at room temperature. This image was generated using **ab228474**, the same clone, but with a different buffer formulation.



Immunocytochemistry/ Immunofluorescence - Anti-SLC34A2 antibody [SP322] - BSA and Azide free (ab238793)

Immunocytochemistry/ Immunofluorescence analysis of NIH/OVCAR-3 (human ovary adenocarcinoma epithelial cell) cells labeling SLC34A2 with purified **ab228474** at 1/100 (2.4 µg/ml). Cells were fixed in 4% paraformaldehyde and permeabilized with 0.1% Triton X-100. Cells were counterstained with **ab195889** Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1/200 (2.5 µg/ml). Goat anti rabbit IgG (Alexa Fluor® 488, **ab150077**) was used as the secondary antibody at 1/1000 (2 µg/ml) dilution. DAPI was used as nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.

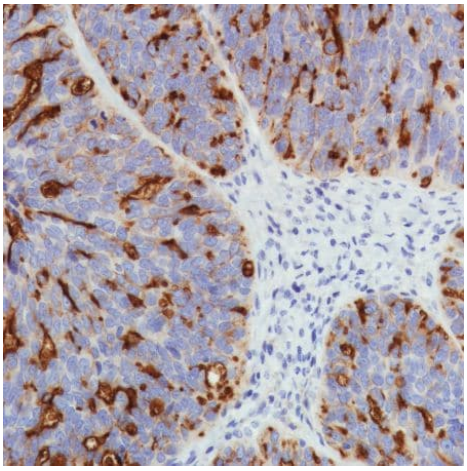
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab228474**).



Flow Cytometry (Intracellular) - Anti-SLC34A2 antibody [SP322] - BSA and Azide free (ab238793)

Intracellular Flow Cytometry analysis of OvCAR-3 (human ovary adenocarcinoma) labeling SLC34A2 with purified **ab228474** at 1/20 dilution (11.85µg/ml) (red). Cells were fixed with 4% paraformaldehyde and permeabilised with 90% methanol. Goat anti rabbit IgG (Alexa Fluor® 488, **ab150077**) at 1/2000 dilution was used as a secondary antibody. Isotypecontrol - Rabbit monoclonal IgG (**ab172730**) (black). Unlableled control - Unlabelled cells (blue).

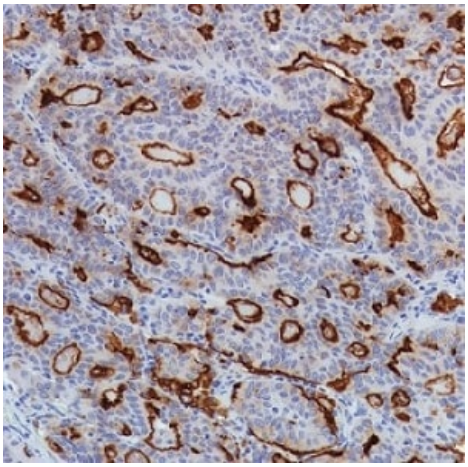
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab228474**).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SLC34A2 antibody [SP322] - BSA and Azide free (ab238793)

Formalin-fixed, paraffin-embedded human lung adenocarcinoma tissue stained for SLC34A2 using **ab228474** at 1/100 dilution in immunohistochemical analysis.

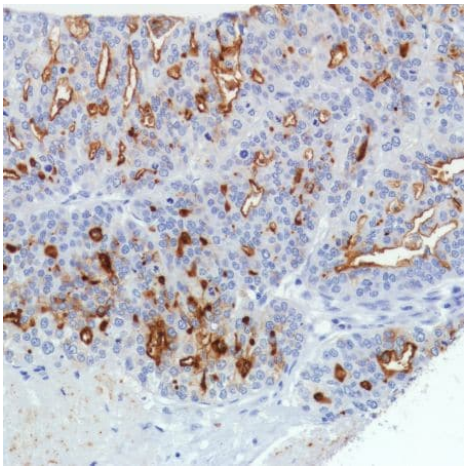
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, and sodium azide (**ab228474**).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SLC34A2 antibody [SP322] - BSA and Azide free (ab238793)

Formalin-fixed, paraffin-embedded human lung adenocarcinoma tissue stained for SLC34A2 using **ab228474** at 1/100 dilution in immunohistochemical analysis.

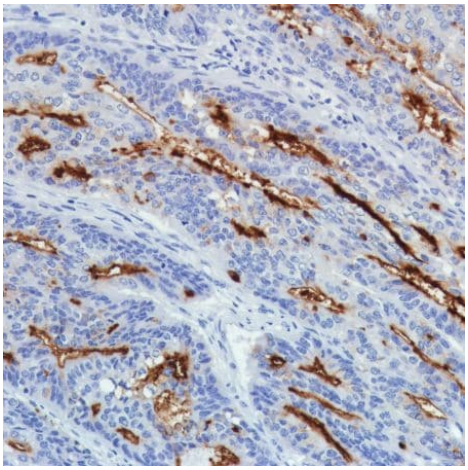
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab228474**).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SLC34A2 antibody [SP322] - BSA and Azide free (ab238793)

Formalin-fixed, paraffin-embedded human ovarian adenocarcinoma tissue stained for SLC34A2 using **ab228474** at 1/100 dilution in immunohistochemical analysis.

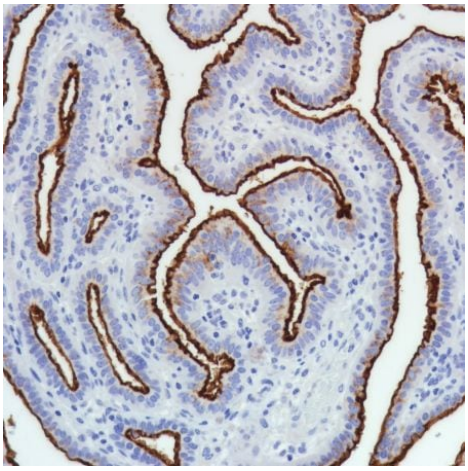
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab228474**).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SLC34A2 antibody [SP322] - BSA and Azide free (ab238793)

Formalin-fixed, paraffin-embedded human endometrial adenocarcinoma tissue stained for SLC34A2 using **ab228474** at 1/100 dilution in immunohistochemical analysis.

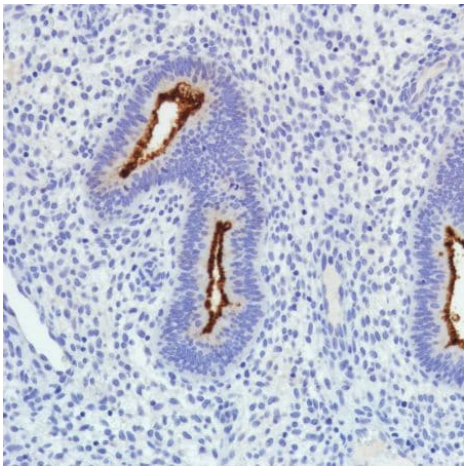
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab228474**).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SLC34A2 antibody [SP322] - BSA and Azide free (ab238793)

Formalin-fixed, paraffin-embedded human fallopian tube tissue stained for SLC34A2 using **ab228474** at 1/100 dilution in immunohistochemical analysis.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab228474**).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SLC34A2 antibody [SP322] - BSA and Azide free (ab238793)

Formalin-fixed, paraffin-embedded human uterus tissue stained for SLC34A2 using **ab228474** at 1/100 dilution in immunohistochemical analysis.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab228474**).

Anti-SLC34A2 antibody [SP322] - BSA and Azide free (ab238793)

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