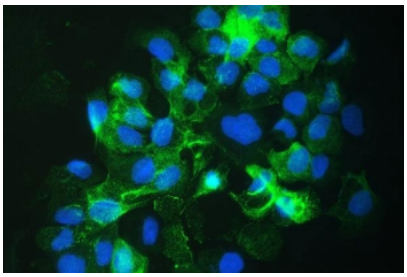
SLC34A2 Antibody / Sodium-Dependent Phosphate Transport Protein 2B (RQ4878)

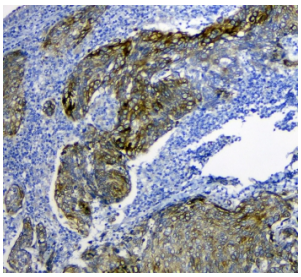
Catalog No.	Formulation	Size
RQ4878	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

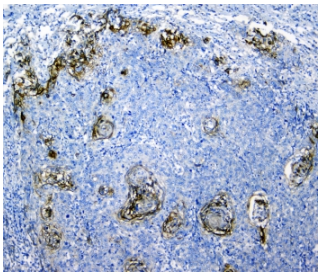
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	O95436
Applications	Western blot: 0.5-1ug/ml Immunohistochemistry (FFPE): 1-2ug/ml Immunofluorescence (FFPE): 2-4ug/ml
Limitations	This SLC34A2 antibody is available for research use only.



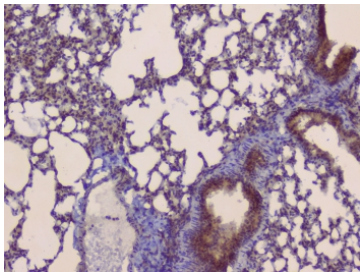
SLC34A2 Antibody in A431 Epidermoid Carcinoma Cells IF. Immunofluorescence staining of FFPE human A431 epidermoid carcinoma cells with SLC34A2 Antibody / Sodium-Dependent Phosphate Transport Protein 2B (green) and DAPI nuclear stain (blue). HIER was performed by steaming in pH 6 citrate buffer for 20 min. Fluorescent staining demonstrates SLC34A2 detection in A431 cells by IF.



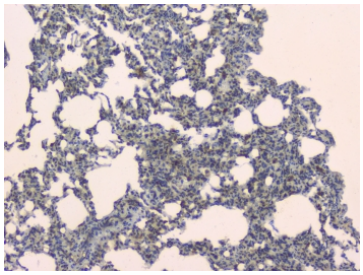
SLC34A2 Antibody in Human Lung Cancer IHC. Immunohistochemistry staining of FFPE human lung cancer tissue with SLC34A2 Antibody / Sodium-Dependent Phosphate Transport Protein 2B. HIER was performed by boiling tissue sections in 10 mM citrate buffer, pH 6, for 10-20 min followed by cooling before testing. The observed staining demonstrates SLC34A2 expression in human lung cancer tissue.



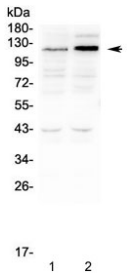
SLC34A2 Antibody in Human Lung Carcinoma IHC. Immunohistochemistry analysis of FFPE human lung carcinoma tissue with SLC34A2 Antibody / Sodium-Dependent Phosphate Transport Protein 2B. Tissue sections underwent HIER by boiling in 10 mM citrate buffer, pH 6, for 10-20 min and were allowed to cool before testing. NaPi-IIb staining highlights SLC34A2-positive structures within the tumor tissue.



SLC34A2 Antibody in Mouse Lung IHC. Immunohistochemistry staining of FFPE mouse lung tissue with SLC34A2 Antibody / Sodium-Dependent Phosphate Transport Protein 2B. HIER was performed by boiling tissue sections in 10 mM citrate buffer, pH 6, for 10-20 min followed by cooling before testing. The staining demonstrates SLC34A2 localization in mouse lung tissue.



SLC34A2 Antibody in Rat Lung IHC. Immunohistochemistry analysis of FFPE rat lung tissue with SLC34A2 Antibody / Sodium-Dependent Phosphate Transport Protein 2B. Tissue sections were subjected to HIER by boiling in 10 mM citrate buffer, pH 6, for 10-20 min and allowed to cool before testing. NaPi-IIb staining demonstrates expression of this epithelial phosphate transporter in rat lung.



SLC34A2 Antibody in HEK293 and K562 Cells WB. Western blot testing of human HEK293 and K562 cell lysates with SLC34A2 Antibody / Sodium-Dependent Phosphate Transport Protein 2B at 0.5 ug/ml. Lane 1: HEK293 cells; Lane 2: K562 cells. SLC34A2 has a predicted molecular weight of approximately 76 kDa and may be observed at higher molecular weights, up to approximately 130 kDa, due to glycosylation.

Description

SLC34A2 Antibody / Sodium-Dependent Phosphate Transport Protein 2B detects SLC34A2, a multi-pass membrane protein also widely known as NaPi-IIb or NaPi2b. SLC34A2 belongs to the SLC34 family of sodium-dependent phosphate transporters and functions as a sodium-phosphate symporter. By coupling inorganic phosphate uptake to the sodium gradient across the plasma membrane, SLC34A2 contributes to phosphate transport and cellular phosphate homeostasis.

SLC34A2 is expressed in epithelial tissues and has an important role in the transport of phosphate across epithelial surfaces. NaPi-IIb activity facilitates cellular uptake of inorganic phosphate, an essential nutrient required for processes

including energy metabolism, nucleic acid synthesis, membrane phospholipid production and cellular signaling. Regulation of phosphate transport therefore contributes to both systemic mineral balance and the metabolic requirements of individual cells and tissues.

Sodium-Dependent Phosphate Transport Protein 2B is particularly relevant to pulmonary biology. SLC34A2 is strongly expressed in the lung, and loss-of-function variants in the SLC34A2 gene cause pulmonary alveolar microlithiasis, a rare disorder characterized by accumulation of calcium phosphate microliths within pulmonary alveoli. This genetic relationship demonstrates the importance of NaPi-IIb-mediated phosphate handling in maintaining normal pulmonary physiology.

SLC34A2 is also extensively investigated in cancer biology because its expression can be maintained or altered in epithelial-derived malignancies. NaPi-IIb has attracted particular interest in ovarian and lung cancer research, as well as studies of other epithelial tumors, where its cell-surface localization makes it useful for investigating tumor expression patterns and potential biomarker applications. Research into SLC34A2 therefore connects fundamental epithelial phosphate transport with pulmonary biology, cancer biology and mechanisms of disease.

This rabbit polyclonal SLC34A2 Antibody was generated against a human protein sequence and has been evaluated by Western blot, immunohistochemistry and immunofluorescence. Validation includes human cells and lung cancer tissue as well as mouse and rat lung, providing complementary cell- and tissue-based detection across three species. NSJ Bioreagents supplies antibodies for research into membrane transport, epithelial biology and disease. An SLC34A2 Antibody can be used to investigate NaPi-IIb expression, epithelial phosphate transport, pulmonary biology and SLC34A2-associated cancer research.

For related reagents used to investigate membrane transport, cellular regulation and downstream biological responses, explore our Signal Transduction Antibodies page.

Application Notes

Optimal dilution of the SLC34A2 Antibody / Sodium-Dependent Phosphate Transport Protein 2B should be determined by the researcher.

Immunogen

Amino acids QNWTMKNVTYKENIAKCQHIFVNFHLPDLA from the human protein were used as the immunogen for the SLC34A2 antibody.

Storage

After reconstitution, the SLC34A2 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

SLC34A2 antibody, Sodium-Dependent Phosphate Transport Protein 2B antibody, NaPi-IIb antibody, NaPi2b antibody, Sodium/Phosphate Cotransporter 2B antibody

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