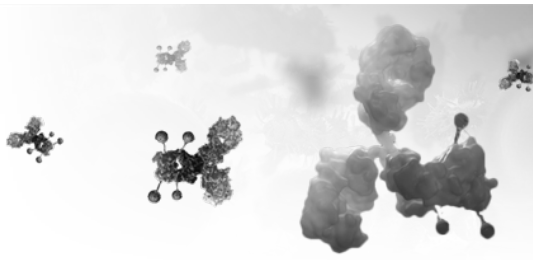

Mouse Anti-Human SLC34A1 monoclonal antibody (CABT-L1097)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Target	SLC34A1 protein
Immunogen	Two synthetic peptides made to an internal portions of the human SLC34A1 protein (between amino acids 25-150 and 100-200)
Isotype	IgG1, κ
Source/Host	Mouse
Species Reactivity	Human, Mouse
Purification	Protein G purified
Conjugate	Unconjugated
Applications	WB, FC, ICC/IF, IHC
Molecular Weight	68.9 kDa.
Cellular Localization	Membrane-Cytoplasmic
Positive Control	SLC34A1 Lysate
Format	Liquid
Concentration	1.0 mg/ml
Buffer	PBS
Preservative	0.02% Sodium Azide

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Storage	-20° C, Avoid Freeze/Thaw Cycles

BACKGROUND

Introduction	SLC34A1 / NaPi-IIa [Solute carrier family 34 (type II sodium/phosphate cotransporter), member 1] belongs to type II sodium-phosphate cotransporter family and it is a multi-pass membrane protein critically involved in the maintenance of renal inorganic phosphate (Pi) homeostasis and the plasma Pi levels. SLC34A1 acts as the most significant regulator of Pi homeostasis through its reabsorption via Na(+) cotransport in the brush border membrane of renal tissues. It is mainly expressed in kidney wherein it accounts for 70-80% of the apical influx, however, its presence in some other tissues such as lungs, testes, fallopian tubes and skeletal as well as heart myocytes has also been documented (UniProt and Human Protein Atlas project databases). Signaling implicated in SLC34A1's regulation include the protein kinases A /C, ERK1/2, Klotho/KL, the PI3K/PKB/GSK3 kinase cascade, NHERF1/ SLC9A3R1, AMP-activated protein kinase AMPK, JAK2, and B-RAF. Moreover, SLC34A1 expression has been reported to be controlled by dietary Pi and hormones namely 1,25-dihydroxyvitamin D3, FGF23, Dopamine, Thyroid Hormone, Glucocorticoids, Estrogen /E2 and Triiodothyronine/T3. Besides renal Pi homeostasis, SLC34A1 has been suggested to involve in several biological processes such as kidney development, bone remodeling, dentinogenesis, cholesterol metabolism, cellular response to metal ion/drug, parathyroid hormone stimulus, protein homooligomerization etc. SLC34A1 mutations have been shown to be associated with diseases such as Nephrolithiasis/osteoporosis, hypophosphatemic, 1 (NPHLOP1), Fanconi renotubular syndrome 2 (FRTS2) and idiopathic infantile hypercalcemia (IIH).
Keywords	SLC34A1;solute carrier family 34 (type II sodium/phosphate contransporter), member 1;Npt2;NaPi-2;NaPi2A;Slc17a2;sodium-dependent phosphate transport protein 2A;naPi-2a;Na(+)/Pi cotransporter 2A;sodium/phosphate cotransporter 2A

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