

SLC44A4 Rabbit pAb

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Catalog # AP55359

Product Information

Application	WB, IHC-P, IHC-F, IF, E
Primary Accession	Q53GD3
Predicted	Human, Mouse, Rat, Horse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	79254
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human SLC44A4
Epitope Specificity	1-100/710
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Membrane; Multi-pass membrane protein (By similarity).
SIMILARITY	Belongs to the CTL (choline transporter-like) family.
DISEASE	Note=An interstitial deletion causing the fusion of exon 10 of CTL4 with the 3'-UTR of NEU has been detected in two patients affected by sialidosis.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Choline is an essential nutrient that is required for the synthesis of both acetylcholine, a neurotransmitter found in cholinergic nerve terminals, and phosphatidylcholine, a key component of cell membranes. Choline deficiencies are associated with defects in cell growth and have been implicated in disorders such as Alzheimer's and Parkinson's disease. The choline transporter-like protein family (CTL) are solute carriers that transport choline, a compound which is not able to permeate cells, across the cell membrane. CTL4, also known as SLC44A4 (Solute carrier family 44 member 4), is a multi-pass membrane protein which can fuse with Neu1, generating a CTL4-Neu1 transcript. This fusion is implicated in sialidosis, a disease characterized by improper lysosomal storage.

Additional Information

Gene ID	80736
Other Names	Choline transporter-like protein 4, Solute carrier family 44 member 4 {ECO:0000312 HGNC:HGNC:13941}, Thiamine pyrophosphate transporter 1, hTPPT1, SLC44A4 (HGNC:13941)
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500,ELISA=1:5000-10000

Storage Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name SLC44A4 ([HGNC:13941](#))

Function Choline transporter that plays a role in the choline- acetylcholine system and is required to the efferent innervation of hair cells in the olivocochlear bundle for the maintenance of physiological function of outer hair cells and the protection of hair cells from acoustic injury (By similarity) (PubMed:[23651124](#), PubMed:[28013291](#)). Also described as a thiamine pyrophosphate transporter in colon, may mediate the absorption of microbiota- generated thiamine pyrophosphate and contribute to host thiamine (vitamin B1) homeostasis (PubMed:[24379411](#), PubMed:[26741288](#)).

Cellular Location Membrane; Multi-pass membrane protein. Apical cell membrane

Tissue Location Highly expressed in colon, also detected in prostate, trachea and lung (PubMed:[24379411](#)). Isoform 3 is also expressed in colon but a lower levels (PubMed:[24379411](#))

Background

Choline is an essential nutrient that is required for the synthesis of both acetylcholine, a neurotransmitter found in cholinergic nerve terminals, and phosphatidylcholine, a key component of cell membranes. Choline deficiencies are associated with defects in cell growth and have been implicated in disorders such as Alzheimer's and Parkinson's disease. The choline transporter-like protein family (CTL) are solute carriers that transport choline, a compound which is not able to permeate cells, across the cell membrane. CTL4, also known as SLC44A4 (Solute carrier family 44 member 4), is a multi-pass membrane protein which can fuse with Neu1, generating a CTL4-Neu1 transcript. This fusion is implicated in sialidosis, a disease characterized by improper lysosomal storage.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.