

SLC20A2 Rabbit pAb

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Catalog # AP59048

Product Information

Primary Accession	Q08357
Reactivity	Mouse
Predicted	Rat, Pig, Human, Rabbit, Chicken, Horse, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	70392
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human SLC20A2/PIT2
Epitope Specificity	51-150/652
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	Cell membrane.
DISEASE	Defects in SLC20A2 are the cause of basal ganglia calcification, idiopathic, type 3 (IBGC3) [MIM:614540]. An autosomal dominant condition characterized by symmetric calcification in the basal ganglia and other brain regions. Affected individuals can either be asymptomatic or show a wide spectrum of neuropsychiatric symptoms, including parkinsonism, dystonia, tremor, ataxia, dementia, psychosis, seizures, and chronic headache. Serum levels of calcium, phosphate, alkaline phosphatase and parathyroid hormone are normal.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	The SLC20 family transport proteins were originally identified as retroviral receptors Glvr-1 and Ram-1, but are now designated sodium-dependent phosphate transporters 1 and 2 (PiT1 and PiT2). The PiT proteins function as sodium-phosphate cotransporters and are widely expressed, with high expression in bone, kidney and intestine. Both PiT1 and PiT2 are expressed on polarized epithelial cell membranes where they play a role in cellular phosphate homeostasis. PiT2 is a human receptor for amphotropic murine leukemia virus (A-MuLV). A-MuLV infects a variety of mammalian cell lines, including humans, making it a useful tool in gene transfer technology and as a vector for gene therapy. Retroviral vector systems are used in gene therapy that are designed to infect cells expressing PiT1 or PiT2.

Additional Information

Gene ID	6575
Other Names	Sodium-dependent phosphate transporter 2, Gibbon ape leukemia virus receptor 2, GLVR-2, Phosphate transporter 2, PiT-2, Pit2, hPit2, Solute carrier family 20 member 2, SLC20A2, GLVR2, PIT2

Dilution	ICC/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	SLC20A2
Synonyms	GLVR2, PIT2
Function	Sodium-phosphate symporter which preferentially transports the monovalent form of phosphate with a stoichiometry of two sodium ions per phosphate ion (PubMed: 12205090 , PubMed: 15955065 , PubMed: 16790504 , PubMed: 17494632 , PubMed: 22327515 , PubMed: 28722801 , PubMed: 30704756). Plays a critical role in the determination of bone quality and strength by providing phosphate for bone mineralization (By similarity). Required to maintain normal cerebrospinal fluid phosphate levels (By similarity). Mediates phosphate-induced calcification of vascular smooth muscle cells (VCMCs) and can functionally compensate for loss of SLC20A1 in VCMCs (By similarity).
Cellular Location	Cell membrane; Multi-pass membrane protein. Apical cell membrane {ECO:0000250 UniProtKB:Q63488}; Multi-pass membrane protein
Tissue Location	Ubiquitously expressed.

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