10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

APRT Rabbit pAb

Catalog # AP99687

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	P07741
Other Accession	P07741
Reactivity	Mouse
Predicted	Rat, Pig, Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	19608
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human APRT
Epitope Specificity	171-270/574
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the purine/pyrimidine phosphoribosyltransferase family.
SUBUNIT	Homodimer.
DISEASE	Defects in APRT are the cause of adenine phosphoribosyltransferase deficiency (APRTD) [MIM:102600]; also known as 2,8-dihydroxyadenine urolithiasis. An enzymatic deficiency that can lead to urolithiasis and renal failure. Patients have 2,8-dihydroxyadenine (DHA) urinary stones.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	APRT is a 180 amino acid protein that localizes to the cytoplasm and belongs to the purine/pyrimidine phosphoribosyltransferase family. Existing as a homodimer, APRT functions to catalyze the formation of inorganic pyrophosphate and AMP from adenine and 5-phosphoribosyl-1-pyrophosphate (PRPP), a reaction that is essential for both purine metabolism and AMP biosynthesis. Defects in the gene encoding APRT are the cause of APRT deficiency, also known as 2,8-dihydroxyadenine urolithiasis, which is an autosomal recessive disease that results in renal failure. The gene encoding APRT maps to human chromosome 16, which encodes over 900 genes and comprises nearly 3% of the human genome. The GAN gene is located on chromosome 16 and, with mutation, may lead to giant axonal neuropathy, a nervous system disorder characterized by increasing malfunction with growth. The rare disorder Rubinstein-Taybi syndrome is also associated with chromosome 16, as is Crohn's disease, which is a gastrointestinal inflammatory condition.

Additional Information

Gene ID	353
	APT_HUMAN; APRT; 2.4.2.7; APT_RAT; adenine phosphoribosyltransferase

Other Names	
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
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	APRT (HGNC:626)
Function	Catalyzes a salvage reaction resulting in the formation of AMP, that is energically less costly than de novo synthesis.
Cellular Location	Cytoplasm.

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