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Rabbit Anti-APRT/PE Conjugated antibody

SL12506R-PE

Product Name	Anti-APRT/PE
Chinese Name	PE 标记的腺嘌呤磷酸核糖转移酶抗体
Alias	Adenine phosphoribosyltransferase; AMP; AMP diphosphorylase; AMP pyrophosphorylase; APRT; APT_HUMAN; DKFZp686D13177; MGC125856; MGC125857; MGC129961; Transphosphoribosidase.
Research Area	Tumour Cell biology immunology Neurobiology The new supersedes the old
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	Mouse(predicted:Human,Rat,Dog,Pig,Cow,Sheep)
Applications	IF=1:100-500 not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight	19kDa
Form	Lyophilized or Liquid
Concentration	1mg/ml
immunogen	KLH conjugated synthetic peptide derived from human APRT
Lsotype	IgG
Purification	affinity purified by Protein A
Storage Buffer	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 1M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
Product Detail	**background:** 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.

Function:
Catalyzes a salvage reaction resulting in the formation of AMP, that is energically less costly than de novo synthesis.

Subunit:
Homodimer.

Subcellular Location:
Cytoplasm.

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.

Similarity:
Belongs to the purine/pyrimidine phosphoribosyltransferase family.

Database links:

Entrez Gene: 353 Human

Entrez Gene: 292072 Rat

Omim: 102600 Human

SwissProt: P07741 Human

SwissProt: P36972 Rat

Unigene: 28914 Human

Unigene: 2498 Rat

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Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.