

For Research Use Only

PAICS Polyclonal antibody

Catalog Number: 12967-1-AP

Featured Product

14 Publications



Basic Information

Catalog Number:

12967-1-AP

Size:

150ul, Concentration: 550 ug/ml by Nanodrop;

Source:

Rabbit

Isotype:

IgG

Immunogen Catalog Number:

AG3621

GenBank Accession Number:

BC010273

GeneID (NCBI):

10606

UNIPROT ID:

P22234

Full Name:

phosphoribosylaminoimidazole carboxylase, phosphoribosylaminoimidazole succinocarboxamide synthetase

Calculated MW:

425 aa, 47 kDa

Observed MW:

47 kDa

Purification Method:

Antigen affinity purification

Recommended Dilutions:

WB: 1:1000-1:8000

IHC: 1:50-1:500

FC (Intra): 0.25 ug per 10⁶ cells in a 100 µl suspension

Applications

Tested Applications:

WB, IHC, ELISA

Cited Applications:

WB, IHC, IF, IP, CoIP

Species Specificity:

human, mouse

Cited Species:

human, mouse

Positive Controls:

WB: HL-60 cells, mouse heart tissue, HeLa cells, Jurkat cells, K-562 cells, Raji cells, THP-1 cells, mouse brain tissue

IHC: human liver tissue, human testis tissue

FC (Intra): HeLa cells,

Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0

Background Information

PAICS is also named as ADE2(Multifunctional protein), AIRC, PAIS. It is an important bifunctional enzyme in de novo purine biosynthesis in vertebrate with both 5-aminoimidazole ribonucleotide carboxylase (AIRC) and 4-(N-succinylcarboxamide)-5-aminoimidazole ribonucleotide synthetase (SAICARs) activities. It becomes an attractive target for rational anticancer drug design, since rapidly dividing cancer cells rely heavily on the purine de novo pathway for synthesis of adenine and guanine, whereas normal cells favor the salvage pathway(PMID:17224163).

Notable Publications

Author	Pubmed ID	Journal	Application
Eunus S Ali	32485148	Mol Cell	WB
Minjun Meng	30097015	Biol Res	WB
Seiya Yamada	32344379	iScience	IF,CoIP

Storage

Storage:

Store at -20°C. Stable for one year after shipment.

Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol, pH7.3

Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

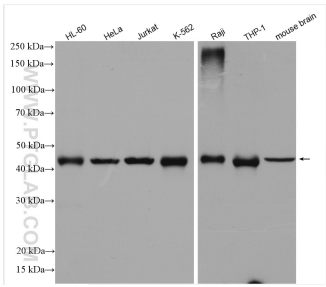
For technical support and original validation data for this product please contact:

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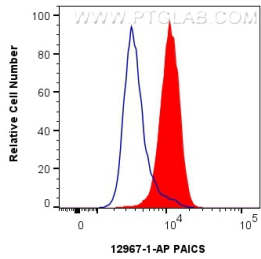
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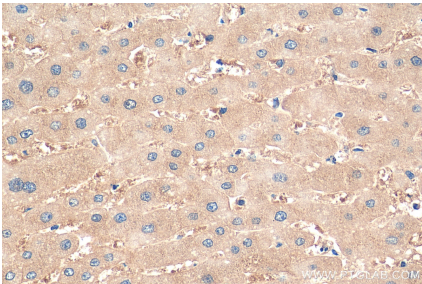
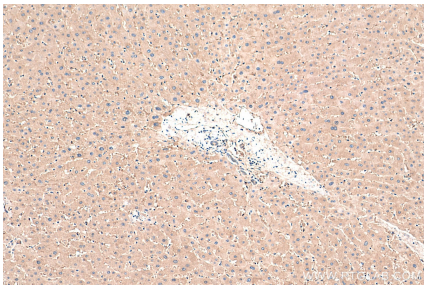
Selected Validation Data



Various lysates were subjected to SDS PAGE followed by western blot with 12967-1-AP (PAICS antibody) at dilution of 1:4000 incubated at room temperature for 1.5 hours.



1x10⁶ HeLa cells were intracellularly stained with 0.25 ug PAICS Polyclonal antibody (12967-1-AP) and CoraLite®488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2)(red), or 0.25 ug Rabbit IgG control Rabbit PolyAb (30000-0-AP) (blue). Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).



Immunohistochemical analysis of paraffin-embedded human liver tissue slide using 12967-1-AP (PAICS antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).