

FPGS Antibody (Center)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP6975c

Specification

FPGS Antibody (Center) - Product Information

Application	WB, IHC-P, FC,E
Primary Accession	Q05932
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	64609
Antigen Region	304-330

FPGS Antibody (Center) - Additional Information

Gene ID 2356

Other Names

Folylpolylglutamate synthase, mitochondrial, Folylpolyl-gamma-glutamyl synthetase, FPGS, Tetrahydrofolylpolylglutamate synthase, Tetrahydrofolate synthase, FPGS

Target/Specificity

This FPGS antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 304-330 amino acids from the Central region of human FPGS.

Dilution

WB~~1:1000
IHC-P~~1:50~100
FC~~1:10~50

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

FPGS Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

FPGS Antibody (Center) - Protein Information

Name FPGS

Function Catalyzes conversion of folates to polyglutamate derivatives allowing concentration of folate compounds in the cell and the intracellular retention of these cofactors, which are important substrates for most of the folate-dependent enzymes that are involved in one-carbon transfer reactions involved in purine, pyrimidine and amino acid synthesis. Unsubstituted reduced folates are the preferred substrates. Metabolizes methotrexate (MTX) to polyglutamates.

Cellular Location

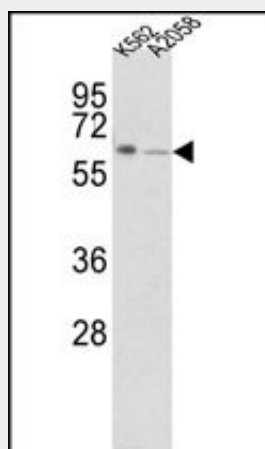
[Isoform 1]: Mitochondrion inner membrane. Mitochondrion matrix

FPGS Antibody (Center) - Protocols

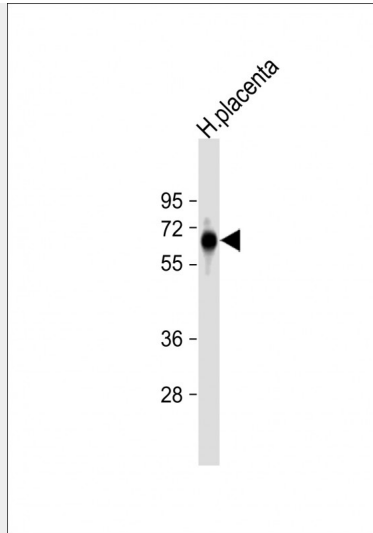
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

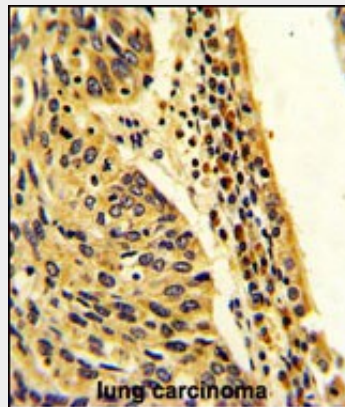
FPGS Antibody (Center) - Images



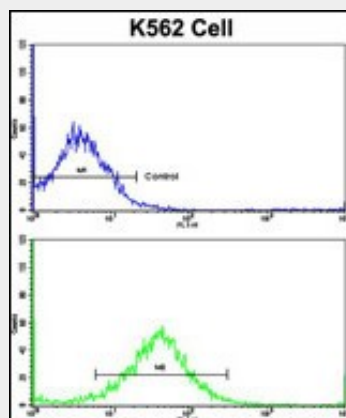
Western blot analysis of FPGS Antibody (Center) (Cat. #AP6975c) in K562, A2058 cell line lysates (35ug/lane). FPGS (arrow) was detected using the purified Pab.



Anti-FPGS Antibody (Center) at 1:1000 dilution + human placenta lysate Lysates/proteins at 20 μ g per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 65 kDa Blocking/Dilution buffer: 5% NFDm/TBST.



Formalin-fixed and paraffin-embedded human lung carcinoma with FPGS Antibody (Center), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



Flow cytometric analysis of K562 cells using FPGS Antibody (Center)(bottom histogram) compared to a negative control cell (top histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

FPGS Antibody (Center) - Background

FPGS is the folylpolyglutamate synthetase enzyme. This enzyme has a central role in establishing and maintaining both cytosolic and mitochondrial folylpolyglutamate concentrations and, therefore, is essential for folate homeostasis and the survival of proliferating cells. This enzyme catalyzes the ATP-dependent addition of glutamate moieties to folate and folate derivatives.

FPGS Antibody (Center) - References

Sharma,S., et.al., Pharmacogenet. Genomics 18 (12), 1041-1049 (2008)