

Rabbit GMPS Polyclonal Antibody | anti-GMPS antibody

Anti-GMPS Antibody

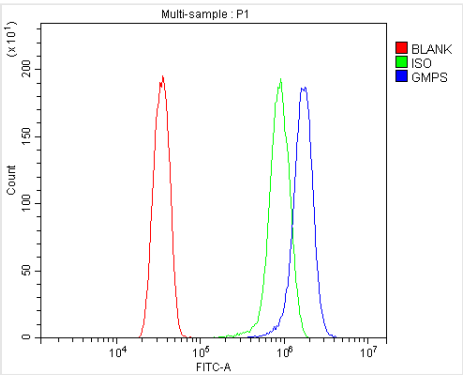
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA125698	Rabbit	Human, Mouse, Rat	ELISA, Flow Cytometry, Functional Assay, Western Blot

PRODUCT SYNONYMS

GMPS; Polyclonal Antibody; Anti-GMPS Antibody; GMP synthase [glutamine-hydrolyzing]; GMP synthetase; Glutamine amidotransferase; guanine monophosphate synthase; anti-GMPS antibody

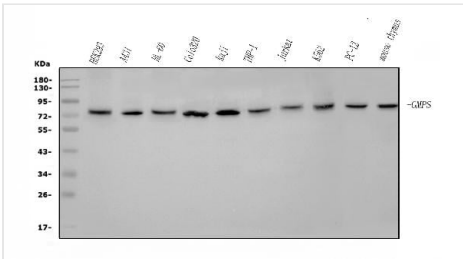
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Rabbit IgG polyclonal antibody for GMPS detection.
Purity/Purification	Immunogen affinity purified.
Form/Format	Lyophilized. Each vial contains 4mg Trehalose, 0.9mg NaCl and 0.2mg Na ₂ HPO ₄ .
Applicable Applications for anti-GMPS antibody	ELISA (Direct ELISA), FCM/FACS (Flow Cytometry), WB (Western Blot)
Immunogen	E Coli-derived human GMPS recombinant protein (Position: H21-K671).
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.
Recommended Detection Systems	Recommended Detection Systems
Preparation and Storage	Store at -20 degree C for one year. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for a longer time. Avoid repeated freezing and thawing.



FCM/FACS (Flow Cytometry)

Figure 2. Flow Cytometry analysis of HELA cells using anti-GMPS antibody (AAA125698).Overlay histogram showing HELA cells stained with AAA125698 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-GMPS Antibody (AAA125698, 1μg/1x106 cells) for 30 min at 20 degree C. DyLight®488 conjugated goat anti-rabbit IgG (5-10μg/1x106 cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1μg/1x106) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



WB (Western Blot)

Figure 1. Western blot analysis of GMPS using anti-GMPS antibody (AAA125698).Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.Lane 1: human HEK293 whole cell lysatesLane 2: human A431 whole cell lysatesLane 3: human HL-60 whole cell lysatesLane 4: human COLO320 whole cell lysatesLane 5: human Raji whole cell lysatesLane 6: human THP-1 whole cell lysatesLane 7: human Jurkat whole cell lysatesLane 8: human K562 whole cell lysatesLane 9: rat PC-12 whole cell lysatesLane 10: mouse thymus tissue lysates.After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1. 5 hour at RT. The membrane was incubated with rabbit anti-GMPS antigen affinity purified polyclonal antibody (Catalog # AAA125698) at 0. 25 μg/mL overnight at 4 degree C, then washed with TBS-0. 1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1. 5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for GMPS at approximately 77KD. The expected band size for GMPS is at 77KD.

ADDITIONAL INFORMATION

Related Product Information for anti-GMPS antibody	Guanosine monophosphate synthetase, also known as GMPS is an enzyme that converts xanthosine monophosphate to guanosine monophosphate. In the de novo synthesis of purine nucleotides, IMP is the branch point metabolite at which point the pathway diverges to the synthesis of either guanine or adenine nucleotides. In the guanine nucleotide pathway, there are 2 enzymes involved in converting IMP to GMP, namely IMP dehydrogenase (IMPD1), which catalyzes the oxidation of IMP to XMP, and GMP synthetase, which catalyzes the amination of XMP to GMP.
References	1. Hirst, M., Haliday, E., Nakamura, J., Lou, L. Human GMP synthetase: protein purification, cloning, and functional expression of cDNA. J. Biol. Chem. 269: 23830-23837, 1994. 2. Pegram, L. D., Megonigal, M. D., Lange, B. J., Nowell, P. C., Rowley, J. D., Rappaport, E. F., Felix, C. A. t(3;11) translocation in treatment-related acute myeloid leukemia fuses MLL with the GMPS (guanosine 5-prime monophosphate synthetase) gene. Blood 96: 4360-4362, 2000.

NCBI AND UNIPROT INFORMATION

NCBI GI #	1708072
NCBI GeneID	8833
UniProt Accession #	P49915; A8K639; B4DXV7; F8W720
Molecular Weight	693
NCBI Official Full Name	GMP synthase
NCBI Official Synonym Full Names	guanine monphosphate synthase
NCBI Official Symbol	GMPS
NCBI Protein Information	GMP synthase [glutamine-hydrolyzing]; GMP synthase [glutamine-hydrolyzing]; GMP synthetase; MLL/GMPS fusion protein; glutamine amidotransferase; guanine monphosphate synthetase; guanosine 5'-monophosphate synthase
UniProt Protein Name	GMP synthase [glutamine-hydrolyzing]
UniProt Gene Name	GMPS

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/gmps-antibody-direct-elisa-flow-cytometry-western-blot-elisa/125698>