BOSTER BIOLOGICAL TECHNOLOGY
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888-466-3604 | support@bosterbio.com | www.bosterbio.com

Anti-GMPS Antibody Picoband®

Catalog Number: A03643-1

About GMPS

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.

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Overview

Product Name	Anti-GMPS Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-GMPS Antibody Picoband® catalog # A03643-1. Tested in ELISA, Flow Cytometry, WB applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	ELISA, Flow Cytometry, WB
Clonality	Polyclonal
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl and 0.2mg Na2HPO4.
Storage Instructions	Store at -20˚C for one year from date of receipt. After reconstitution, at 4˚C for one month. It can also be aliquotted and stored frozen at -20˚C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	P49915

Technical Details

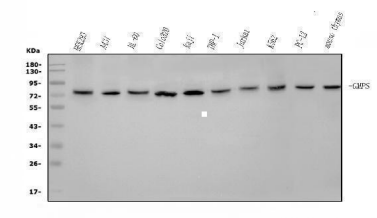
Immunogen	E.coli-derived human GMPS recombinant protein (Position: H21-K671).
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot.

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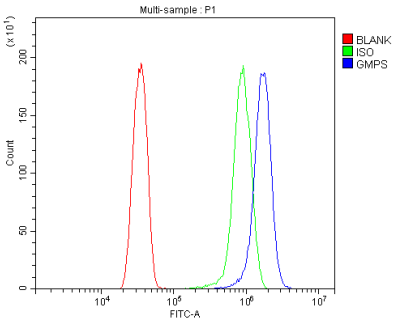
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.1-0.25ug/ml, Human, Mouse, Rat Flow Cytometry (Fixed), 1-3ug/1x10^6 cells, Human ELISA, 0.1-0.5ug/ml, - Note: For flow cytometry (FCM), suitable for fixed cells only. Not suitable for FACS or surface flow cytometry using live cells.

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Anti-GMPS Antibody Picoband® (A03643-1) Images



Western blot analysis of GMPS using anti-GMPS antibody (A03643-1). 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 lysates, Lane 2: human A431 whole cell lysates, Lane 3: human HL-60 whole cell lysates, Lane 4: human COLO320 whole cell lysates, Lane 5: human Raji whole cell lysates, Lane 6: human THP-1 whole cell lysates, Lane 7: human Jurkat whole cell lysates, Lane 8: human K562 whole cell lysates, Lane 9: rat PC-12 whole cell lysates, Lane 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 # A03643-1) at 0.25 ug/mL overnight at 4°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 (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for GMPS at approximately 77KD. The expected band size for GMPS is at 77KD.



Flow Cytometry analysis of HELA cells using anti-GMPS antibody (A03643-1). Overlay histogram showing HELA cells stained with A03643-1 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-GMPS Antibody (A03643-1, 1ug/1x106 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x106 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x106) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

For Research Use Only. Not for use in diagnostic procedures.