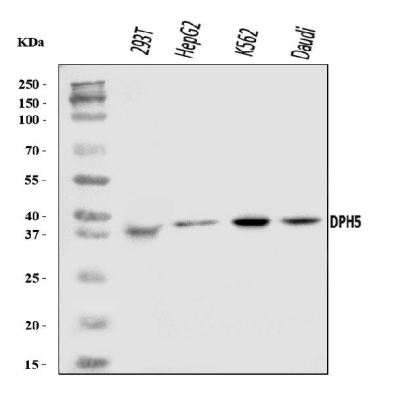
DPH5 Antibody – Rabbit Polyclonal

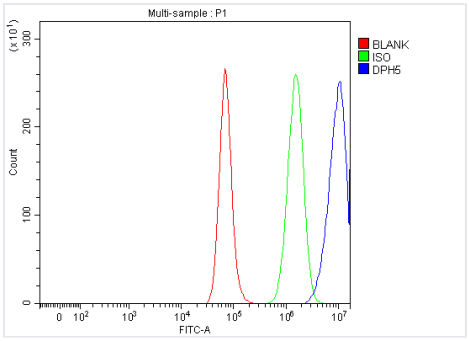
PRODUCT OVERVIEW

Product Name	DPH5, Polyclonal Antibody
Full Product Name	Anti-DPH5 Antibody Picoband
Product Gene Name	anti-DPH5 antibody
Clonality	Polyclonal
Isotype	Rabbit IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Lyophilized Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
Purity/Purification	Immunogen affinity purified.
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml. (lot specific)
Preparation and Storage	Store at -20 degree C for one year from date of receipt. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for six months. Avoid repeated freezing and thawing.
Molecular Weight	31,651 Da
Chromosome Location	Chromosome: 1; NC_000001.10 (101455179..101491365, complement). Location: 1p21.2
OMIM	611075
3D Structure	ModBase 3D Structure for Q9H2P9
Reconstitution	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Immunogen	E Coli-derived human DPH5 recombinant protein (Position: D11-H250).
Product Categories/Family for anti-DPH5 antibody	Primary Antibodies, Rabbit Polyclonal Antibodies
ISO Certification	Manufactured in an ISO 13485:2003 and EN ISO 13485:2012 Certified Laboratory.
Applications Tested/Suitable for anti-DPH5 antibody	ELISA (EIA), Flow Cytometry (FC/FACS), Immunofluorescence (IF), Immunocytochemistry (ICC), Western Blot (WB)
Application Notes for anti-DPH5 antibody	WB: 0.25-0.5 ug/ml, Human ICC/IF: 5 ug/ml, Human FC/FACS: 1-3 ug/1x10^6 cells, Human Direct ELISA: 0.1-0.5 ug/ml, Human Tested Species: In-house tested species with positive results. Enhanced Chemiluminescent Kit with anti-Rabbit IgG (#MBS176460) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (#MBS176453) for ICC.
Related Product Information for anti-DPH5 antibody	Diphthine synthase is an enzyme that in humans is encoded by the DPH5 gene. This gene encodes a component of the diphthamide synthesis pathway. Diphthamide is a post-translationally modified histidine residue found only on translation elongation factor 2. It is conserved from archaebacteria to humans, and is targeted by diphtheria toxin and Pseudomonas exotoxin A to halt cellular protein synthesis. The yeast and Chinese hamster homologs of this protein catalyze the trimethylation of the histidine residue on elongation factor 2, resulting in a diphthine moiety that is subsequently amidated to yield diphthamide. Multiple transcript variants encoding different isoforms have been found for this gene.

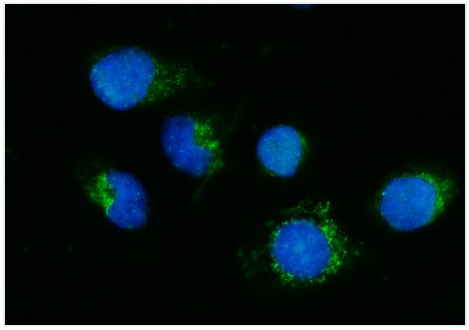
Other Notes	Small volumes of anti-DPH5 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for DPH5 purchase	MBS1755805 is an antibody targeting DPH5. Also known as Anti-DPH5 Antibody Picoband. Reactive in Human. Host: Rabbit.



Western Blot (WB) of anti-DPH5 antibody
Figure 1. Western blot analysis of DPH5 using anti-DPH5 antibody (MBS1755805).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 30 ug of sample under reducing conditions.Lane 1: human 293T whole cell lysates,Lane 2: human HepG2 whole cell lysates,Lane 3: human K562 whole cell lysates,Lane 4: human Daudi whole cell lysates.After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA 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-DPH5 antigen affinity purified polyclonal antibody (#MBS1755805) at 0.5 ug/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 DPH5 at approximately 37 kDa. The expected band size for DPH5 is at 32 kDa.



Flow Cytometry (FC/FACS) of anti-DPH5 antibody
Figure 3. Flow Cytometry analysis of A549 cells using anti-DPH5 antibody (MBS1755805).Overlay histogram showing A549 cells stained with MBS1755805 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-DPH5 Antibody (MBS1755805, 1 ug/1x10^6 cells) for 30 min at 20 degree C. DyLight488 conjugated goat anti-rabbit IgG (MBS177405, 5-10 ug/1x10^6 cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x10^6) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



Immunofluorescence (IF) of anti-DPH5 antibody
Figure 2. IF analysis of DPH5 using anti-DPH5 antibody (MBS1755805).DPH5 was detected in an immunocytochemical section of U2OS cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5 ug/mL rabbit anti-DPH5 Antibody (MBS1755805) overnight at 4 degree C. DyLight488 Conjugated Goat Anti-Rabbit IgG (MBS177405) was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37 degree C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for DPH5. It may not necessarily be applicable to this product.

NCBI GI #	119593346
NCBI GeneID	51611

NCBI Accession #	EAW72940.1
UniProt Primary Accession #	Q9H2P9
UniProt Secondary Accession #	Q9P017; Q9P0I4; Q9Y319; A8JZY6; D3DT62
UniProt Related Accession #	Q9H2P9
NCBI Official Full Name	DPH5 homolog (S. cerevisiae), isoform CRA_b
NCBI Official Synonym Full Names	diphthamide biosynthesis 5
NCBI Official Symbol	DPH5
NCBI Official Synonym Symbols	AD-018; CGI-30; NPD015; HSPC143
UniProt Protein Name	Diphthine synthase
UniProt Synonym Protein Names	Diphthamide biosynthesis methyltransferase
Protein Family	Diphthine methyl ester synthase
UniProt Gene Name	DPH5
UniProt Entry Name	DPH5_HUMAN
NCBI Protein Information	diphthine synthase; DPH5 homolog; protein x 0011; diphthamide biosynthesis methyltransferase
NCBI Summary for DPH5	This gene encodes a component of the diphthamide synthesis pathway. Diphthamide is a post-translationally modified histidine residue found only on translation elongation factor 2. It is conserved from archaebacteria to humans, and is targeted by diphtheria toxin and Pseudomonas exotoxin A to halt cellular protein synthesis. The yeast and Chinese hamster homologs of this protein catalyze the trimethylation of the histidine residue on elongation factor 2, resulting in a diphthine moiety that is subsequently amidated to yield diphthamide. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2008]
UniProt Comments for DPH5	DPH5: S-adenosyl-L-methionine-dependent methyltransferase that catalyzes the trimethylation of the amino group of the modified target histidine residue in translation elongation factor 2 (EF- 2), to form an intermediate called diphthine. The three successive methylation reactions represent the second step of diphthamide biosynthesis. Belongs to the diphthine synthase family. 6 isoforms of the human protein are produced by alternative splicing. Protein type: Methyltransferase; EC 2.1.1.98 Chromosomal Location of Human Ortholog: 1p21.2 Cellular Component: cytosol Molecular Function: diphthine synthase activity Biological Process: methylation; cellular protein metabolic process; peptidyl-diphthamide biosynthetic process from peptidyl-histidine; post-translational protein modification
Research Articles on DPH5	**1.** The yeast and Chinese hamster homologs of human DPH5 catalyze the trimethylation step in the biosynthesis of diphthamide
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Online datasheet: https://www.mybiosource.com/polyclonal-human-antibody/dph5/1755805