

DPH3 Rabbit pAb

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Catalog # AP55564

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q96FX2
Predicted	Rat, Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	9240
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human DPH3
Epitope Specificity	1-82/82
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Cytoplasm. Nucleus.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	This gene encodes a CSL zinc finger-containing protein that is required for diphthamide biosynthesis. The encoded protein is necessary for the initial step in the modification of a histidine residue in elongation factor-2 to diphthamide. This modified residue is a target for ADP ribosylation by the bacterial toxins diphtheria toxin and Pseudomonas exotoxin A. Alternative splicing results in multiple transcript variants that encode the same isoform. [provided by RefSeq, Feb 2009]

Additional Information

Gene ID	285381
Other Names	Diphthamide biosynthesis protein 3, CSL-type zinc finger-containing protein 2, DelGEF-interacting protein 1, DelGIP1, DPH3, DESR1 {ECO:0000303 PubMed:14527407}, ZCSL2
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500,ELISA=1:500 0-10000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	DPH3
Synonyms	DESR1 {ECO:0000303 PubMed:14527407}, ZCS
Function	Required for the first step of diphthamide biosynthesis, a post-translational modification of histidine which occurs in elongation factor 2. DPH1 and DPH2 transfer a 3-amino-3-carboxypropyl (ACP) group from S-adenosyl-L-methionine (SAM) to a histidine residue, the reaction is assisted by a reduction system comprising DPH3 and a NADH-dependent reductase. Acts as an electron donor to reduce the Fe-S cluster in DPH1-DPH2 keeping the [4Fe-4S] clusters in the active and reduced state. Restores iron to DPH1-DPH2 iron-sulfur clusters which have degraded from [4Fe-4S] to [3Fe-4S] by donating an iron atom to reform [4Fe-4S] clusters, in a manner dependent on the presence of elongation factor 2 and SAM. Associates with the elongator complex and is required for tRNA Wobble base modifications mediated by the elongator complex. The elongator complex is required for multiple tRNA modifications, including mcm5U (5-methoxycarbonylmethyl uridine), mcm5s 2U (5- methoxycarbonylmethyl-2-thiouridine), and ncm5U (5-carbamoylmethyl uridine).
Cellular Location	Cytoplasm. Nucleus
Tissue Location	Widely expressed with highest levels in small intestine, spleen, thymus, heart, liver and lung

Background

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Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.