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OVCA1 Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP58295

Product Information

Application	WB, IHC-P, IHC-F, IF, E
Primary Accession	Q9BZG8
Reactivity	Rat, Dog, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	48134
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human OVCA1
Epitope Specificity	251-350/443
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	Nucleus. Cytoplasm. Note=Punctate, primarily perinuclear localization.
SIMILARITY	Belongs to the DPH1/DPH2 family. DPH1 subfamily.
SUBUNIT	Interacts with DPH2 (By similarity). Interacts with RBM8A.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	OVCA1 is required for the first step in the synthesis of diphthamide, a unique posttranslationally modified histidine found only in translation elongation factor-2 (EEF2; MIM 130610). This modification is conserved from archaebacteria to humans and serves as the target for ADP-ribosylation and inactivation of EEF2 by diphtheria toxin (DT) and Pseudomonas exotoxin A. OVCA1 is one of several enzymes involved in synthesis of diphthamide in EEF2.

Additional Information

Gene ID	1801
Other Names	2-(3-amino-3-carboxypropyl)histidine synthase subunit 1, 2.5.1.108, DPH1, DPH2L, DPH2L1, OVCA1
Target/Specificity	Expressed in heart, brain, placenta, lung, liver, skeletal muscle, kidney, pancreas, spleen, thymus, mammary gland, colon, small intestine, testis and ovary. Reduced expression in primary breast and ovarian tumors.
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,ELISA=1:5000-10000
Format	0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glyce

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	DPH1 {ECO:0000303|PubMed:26220823}
Function	Catalyzes the first step of diphthamide biosynthesis, a post- translational modification of histidine which occurs in elongation factor 2 (PubMed:30877278). 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 (By similarity). Acts as a tumor suppressor (PubMed:10519411).
Cellular Location	Nucleus. Cytoplasm. Note=Punctate, primarily perinuclear localization.
Tissue Location	Expressed in heart, brain, placenta, lung, liver, skeletal muscle, kidney, pancreas, spleen, thymus, mammary gland, colon, small intestine, testis and ovary. Reduced expression in primary breast and ovarian tumors.