



Rabbit Anti-EYA3 antibody

SL12382R

Product Name:	EYA3
Chinese Name:	EYA3蛋白抗体
Alias:	AI844637; DKFZp686C132; EYA3; EYA3_HUMAN; Eyes absent 3; Eyes absent 3 homolog (Drosophila); Eyes absent homolog 3; OTTMUSP00000010370; RP11-460I13.4; RP23-442A20.1.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Dog,Pig,Cow,Horse,Rabbit,Sheep,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	63kDa
Cellular localization:	The nucleocytoplasmic
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human EYA3:371-470/573
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. 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.
PubMed:	PubMed
Product Detail:	EYA3 is a 573 amino acid protein that localizes to both the nucleus and the cytoplasm and is one of several mammalian homologs of the Drosophila Eya (eyes absent) protein. Existing as two alternatively spliced isoforms, EYA3 possesses magnesium-catalyzed phosphatase activity and is thought to play a role in transcriptional regulation during organogenesis. Specifically, EYA3 interacts with proteins such as Six1 and, via this

interaction, functions to activate the expression of genes that are involved in cellular proliferation and organ development. Upon DNA damage, EYA3 may be phosphorylated by ATM or ATR. The gene encoding EYA3 maps to chromosome 1, which spans about 260 million base pairs and comprises nearly 8% of the human genome.

Function:

Tyrosine phosphatase that specifically dephosphorylates 'Tyr-142' of histone H2AX (H2AXY142ph). 'Tyr-142' phosphorylation of histone H2AX plays a central role in DNA repair and acts as a mark that distinguishes between apoptotic and repair responses to genotoxic stress. Promotes efficient DNA repair by dephosphorylating H2AX, promoting the recruitment of DNA repair complexes containing MDC1. Its function as histone phosphatase probably explains its role in transcription regulation during organogenesis. Coactivates SIX1, and seems to coactivate SIX2, SIX4 and SIX5. The repression of precursor cell proliferation in myoblasts by SIX1 is switched to activation through recruitment of EYA3 to the SIX1-DACH1 complex and seems to be dependent on EYA3 phosphatase activity (By similarity). May be involved in development of the eye.

Subunit:

Interacts with SIX1 and DACH1, and probably SIX2, SIX4, SIX5.

Subcellular Location:

Cytoplasm. Nucleus.

Post-translational modifications:

Phosphorylated upon DNA damage, probably by ATM or ATR. Ser-266 phosphorylation is required for localization at sites of DNA damage and directing interaction with H2AX.

Similarity:

Belongs to the HAD-like hydrolase superfamily. EYA family.

SWISS:

Q99504

Gene ID:

2140

Database links:

[Entrez Gene: 2140](#)Human

[Entrez Gene: 14050](#)Mouse

[Omim: 601655](#)Human

[SwissProt: Q99504](#)Human

[SwissProt: P97480](#)Mouse

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

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