



## Rabbit Anti-EYA2 antibody

SL13125R

<b>Product Name:</b>	EYA2
<b>Chinese Name:</b>	眼睛发育缺失蛋白EYA2抗体
<b>Alias:</b>	EAB 1; EAB1; EYA 2; EYA2; EYA2_HUMAN; eyes absent 2 homolog (Drosophila); Eyes absent homolog 2; Translation of this uORF probably lowers the translation efficiency of EYA2.
<b>Organism Species:</b>	Rabbit
<b>Clonality:</b>	Polyclonal
<b>React Species:</b>	Human,Mouse,Rat,Dog,Pig,Cow,Horse,Sheep,
<b>Applications:</b>	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.
<b>Molecular weight:</b>	59kDa
<b>Cellular localization:</b>	The nucleuscytoplasmic
<b>Form:</b>	Lyophilized or Liquid
<b>Concentration:</b>	1mg/ml
<b>immunogen:</b>	KLH conjugated synthetic peptide derived from human EYA2:201-300/538
<b>Lsotype:</b>	IgG
<b>Purification:</b>	affinity purified by Protein A
<b>Storage Buffer:</b>	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
<b>Storage:</b>	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.
<b>PubMed:</b>	<a href="#">PubMed</a>
<b>Product Detail:</b>	A gene on chromosome 20q13.1 encodes Eya2 (eyes absent). EYA2 is one of four members of the eyes absent family. A 271 amino acid domain at the carboxy-terminal is highly conserved amongst the members of the eyes absent family, while the PST (proline-serive-threonin)-rich amino-terminal is highly divergent. EYA2 is expressed relatively late in development in the cytoplasm of extensor tendons and ligaments of the

phalangeal elements of the limb, cranial placodes, branchial arches, central nervous system, and the developing eye. Pax3 induces the expression of Eya2 in a cascade that is necessary and sufficient for myogenesis. EYA2, like EYA1, acts as a transcriptional activator in connective tissue patterning through its PST domain, which functions as a transactivation domain. EYA2 is translocated to the nucleus by Six proteins, which interact through their domain and homeodomain with EYA2. EYA2 carboxy-terminal interacts with the G Alpha z and G Alpha 2 proteins. This interaction prevents Six proteins from translocating EYA2 to the nucleus.

**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. Seems to coactivate SIX2, SIX4 and SIX5. Together with SIX1 and DACH2 seem to be involved in myogenesis. May be involved in development of the eye. Interaction with GNAZ and GNAI2 prevents nuclear translocation and transcriptional activity.

**Subunit:**

Interacts with GNAZ and GNAI2. Interacts with DACH2 and SIX1, and probably with SIX2, SIX4 and SIX5. Interacts with CAPN8 (By similarity).

**Subcellular Location:**

Cytoplasm. Nucleus.

**Tissue Specificity:**

Highest expression in muscle with lower levels in kidney, placenta, pancreas, brain and heart.

**Similarity:**

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

**SWISS:**

O00167

**Gene ID:**

2139

**Database links:**

[Entrez Gene: 615264](#)Cow

[Entrez Gene: 2139](#)Human

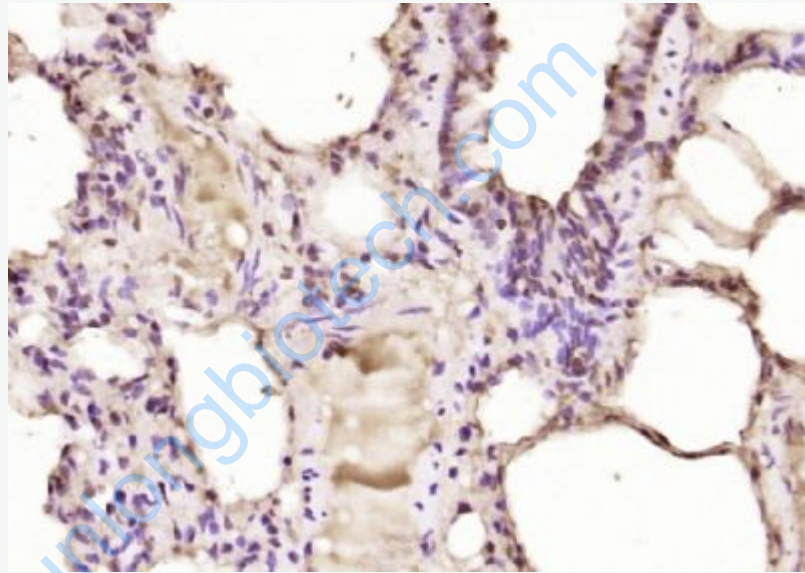
[Omin: 601654](#)Human

[SwissProt: Q58DB6](#)Cow

[SwissProt: O00167](#)Human

**Important Note:**

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



**Picture:**

Paraformaldehyde-fixed, paraffin embedded (rat lung); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (EYA2) Polyclonal Antibody, Unconjugated (SL13125R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.