

Anti-EYA1 Antibody

Catalog # AP60165

Product Information

Application	WB, IHC
Primary Accession	Q99502
Other Accession	Q95677
Reactivity	Human, Mouse, Rat, Zebrafish, Mk
Host	Rabbit
Clonality	Polyclonal
Calculated MW	64593

Additional Information

Gene ID	2138
Other Names	EYA1; Eyes absent homolog 1; EYA4; Eyes absent homolog 4
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human EYA1. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000) IHC~~1:100~500
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

Name	EYA1
Function	Functions both as protein phosphatase and as transcriptional coactivator for SIX1, and probably also for SIX2, SIX4 and SIX5 (By similarity). Tyrosine phosphatase that dephosphorylates 'Tyr-142' of histone H2AX (H2AXY142ph) and promotes efficient DNA repair via the recruitment of DNA repair complexes containing MDC1. '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 (PubMed: 19234442). Its function as histone phosphatase may contribute to its function in transcription regulation during organogenesis (By similarity). Also has phosphatase activity with proteins phosphorylated on Ser and Thr residues (in vitro) (By similarity). Required for normal embryonic development of the craniofacial and trunk skeleton, kidneys and ears (By similarity). Together with SIX1, it plays an important role in hypaxial muscle development; in this it is functionally redundant with EYA2 (By similarity).

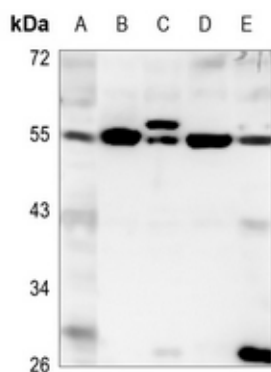
Cellular Location

Cytoplasm. Nucleus Note=Localizes at sites of DNA damage at double-strand breaks (DSBs)

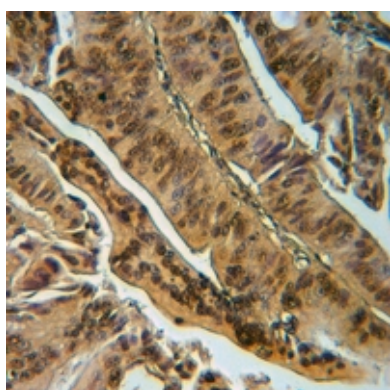
Tissue Location

In the embryo, highly expressed in kidney with lower levels in brain. Weakly expressed in lung. In the adult, highly expressed in heart and skeletal muscle. Weakly expressed in brain and liver. No expression in eye or kidney

Images



Western blot analysis of EYA1 expression in PC3 (A), mouse brain (B), mouse testis (C), rat brain (D), rat testis (E) whole cell lysates. (Predicted band size: 64; 69 kD; Observed band size: 55 kD)



Immunohistochemical analysis of EYA1 staining in human lung cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

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