

**EYA1 Antibody (N-term) Blocking peptide**  
**Synthetic peptide**  
**Catalog # BP12446a****Specification**

---

**EYA1 Antibody (N-term) Blocking peptide - Product Information**Primary Accession [Q99502](#)**EYA1 Antibody (N-term) Blocking peptide - Additional Information****Gene ID** 2138**Other Names**

Eyes absent homolog 1, EYA1

**Format**

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

**Precautions**

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

**EYA1 Antibody (N-term) Blocking peptide - 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: <http://www.uniprot.org/citations/19234442> target="\_blank">19234442</a>). 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

### **EYA1 Antibody (N-term) Blocking peptide - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

### **EYA1 Antibody (N-term) Blocking peptide - Images**

### **EYA1 Antibody (N-term) Blocking peptide - Background**

This gene encodes a member of the eyes absent (EYA) family of proteins. The encoded protein may play a role in the developing kidney, branchial arches, eye, and ear. Mutations of this gene have been associated with branchiootorenal dysplasia syndrome, branchiootic syndrome, and sporadic cases of congenital cataracts and ocular anterior segment anomalies. A similar protein in mice can act as a transcriptional activator. Four transcript variants encoding three distinct isoforms have been identified for this gene.

### **EYA1 Antibody (N-term) Blocking peptide - References**

Jugessur, A., et al. PLoS ONE 5 (7), E11493 (2010) ; Lin, L., et al. Zhonghua Zheng Xing Wai Ke Za Zhi 25(6):436-439(2009) Drake, K.M., et al. Clin. Cancer Res. 15(19):5985-5992(2009) Patrick, A.N., et al. J. Biol. Chem. 284(31):20781-20790(2009) Lee, J.D., et al. Ann. Clin. Lab. Sci. 39(3):303-306(2009)