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Goat Anti-EYA1 Antibody

Peptide-affinity purified goat antibody
Catalog # AF2218a

Specification

Goat Anti-EYA1 Antibody - Product Information

Application	**WB**
Primary Accession	Q99502
Other Accession	NP_742056, 2138, 14048 (mouse), 502935 (rat)
Reactivity	**Human**
Predicted	**Mouse, Rat, Dog, Cow**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**100ug/200ul**
Isotype	**IgG**
Calculated MW	**64593**

Goat Anti-EYA1 Antibody - Additional Information

Gene ID 2138

Other Names
Eyes absent homolog 1, 3.1.3.16, 3.1.3.48, EYA1

Format
0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Goat Anti-EYA1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-EYA1 Antibody - 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:<a href="http://www.uniprot.org/citations/19234442"

target="_blank">19234442). Its function as histone phosphatase may contribute to its function in transcription regulation during organogenesis (By similarity). Has also 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)

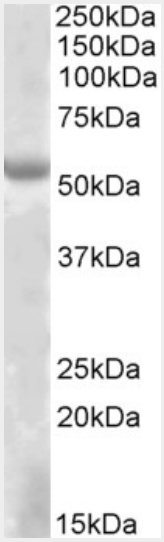
Tissue Location
In the embryo, highly expressed in kidney with lower levels in brain. Weakly expressed in lung. In the adult, highly expressed in heart and skeletal muscle. Weakly expressed in brain and liver. No expression in eye or kidney

Goat Anti-EYA1 Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Goat Anti-EYA1 Antibody - Images



AF2218a (2 µg/ml) staining of HEK293 lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

Goat Anti-EYA1 Antibody - 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.

Goat Anti-EYA1 Antibody - References

Maternal genes and facial clefts in offspring: a comprehensive search for genetic associations in two population-based cleft studies from Scandinavia. Jugessur A, et al. PLoS One, 2010 Jul 9. PMID 20634891.
[Study of methylation of promoter of EYA1 gene in microtia] Lin L, et al. Zhonghua Zheng Xing Wai Ke Za Zhi, 2009 Nov. PMID 20209935.
Loss of heterozygosity at 2q37 in sporadic Wilms' tumor: putative role for miR-562. Drake KM, et al. Clin Cancer Res, 2009 Oct 1. PMID 19789318.
A novel frameshift mutation in the EYA1 gene in a Korean family with branchio-oto-renal syndrome. Lee JD, et al. Ann Clin Lab Sci, 2009 Summer. PMID 19667416.
Biochemical and functional characterization of six SIX1 Branchio-oto-renal syndrome mutations. Patrick AN, et al. J Biol Chem, 2009 Jul 31. PMID 19497856.