

**Anti-HOXA1 Picoband Antibody**  
**Catalog # ABO13012****Specification**

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**Anti-HOXA1 Picoband Antibody - Product Information**

Application	WB
Primary Accession	<a href="#">P49639</a>
Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Format	Lyophilized

**Description**

Rabbit IgG polyclonal antibody for Homeobox protein Hox-A1(HOXA1) detection. Tested with WB in Human.

**Reconstitution**

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

**Anti-HOXA1 Picoband Antibody - Additional Information**

**Gene ID** 3198

**Other Names**

Homeobox protein Hox-A1, Homeobox protein Hox-1F, HOXA1, HOX1F

**Calculated MW**

36641 MW KDa

**Application Details**

Western blot, 0.1-0.5 µg/ml, Human<br>

**Subcellular Localization**

Nucleus.

**Contents**

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na<sub>2</sub>HPO<sub>4</sub>, 0.05mg NaN<sub>3</sub>.

**Immunogen**

A synthetic peptide corresponding to a sequence at the C-terminus of human HOXA1 (202-243aa AQTFDWMKVKRNPPTGKVGEGYLGQPNVARTNFTTKQLTE), different from the related mouse and rat sequences by one amino acid.

**Purification**

Immunogen affinity purified.

**Cross Reactivity**

No cross reactivity with other proteins.

**Storage**

**At -20°C for one year. After r°Constitution,**

at 4°C for one month. It°Can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.

## Anti-HOXA1 Picoband Antibody - Protein Information

**Name** HOXA1

**Synonyms** HOX1F

### Function

Sequence-specific transcription factor (By similarity). Regulates multiple developmental processes including brainstem, inner and outer ear, abducens nerve and cardiovascular development and morphogenesis as well as cognition and behavior (PubMed:<a href="http://www.uniprot.org/citations/16155570" target="\_blank">16155570</a>). Also part of a developmental regulatory system that provides cells with specific positional identities on the anterior-posterior axis. Acts on the anterior body structures. Seems to act in the maintenance and/or generation of hindbrain segments (By similarity). Activates transcription in the presence of PBX1A and PKNX1 (By similarity).

### Cellular Location

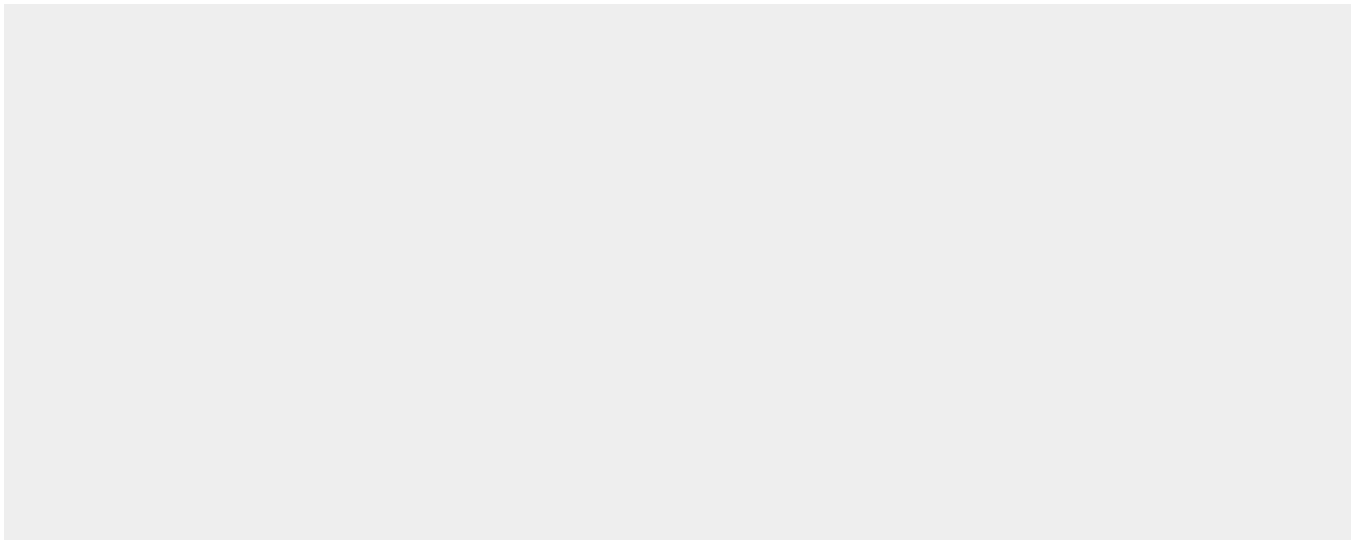
Nucleus {ECO:0000250|UniProtKB:P09022}.

## Anti-HOXA1 Picoband 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 Cytometry](#)
- [Cell Culture](#)

## Anti-HOXA1 Picoband Antibody - Images



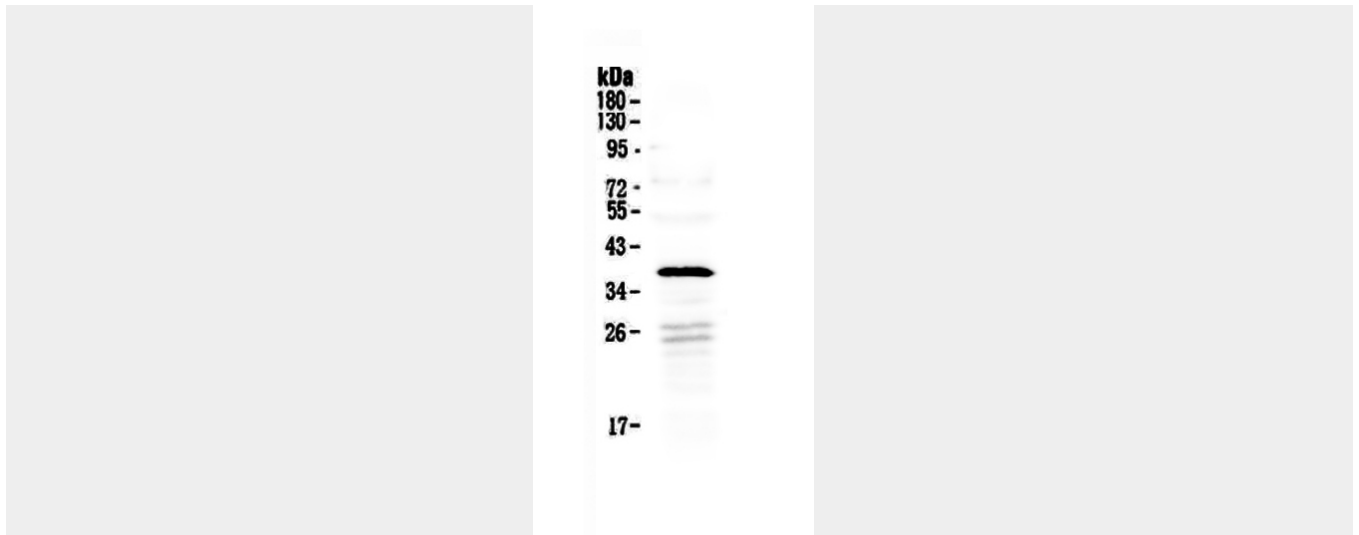


Figure 1. Western blot analysis of HOXA1 using anti-HOXA1 antibody (ABO13012).

#### **Anti-HOXA1 Picoband Antibody - Background**

HOXA1 (HOMEODOMAIN A1), also called HOMEODOMAIN 1F, is a protein that in humans is encoded by the HOXA1 gene. In PA-1 teratocarcinoma cells, HOXA1 was induced by retinoic acid earlier than other HOXA cluster genes. The HOXA1 gene is mapped on 7p15.2. In vertebrates, the genes encoding the class of transcription factors called homeobox genes are found in clusters named A, B, C, and D on four separate chromosomes. Expression of these proteins is spatially and temporally regulated during embryonic development. A common polymorphism in the HOXA1 gene is associated with a susceptibility to autism spectrum disorder. Three-dimensional reconstructions of Hoxa1  $-/-$  rhombencephalon revealed that it bears only 5 rhombomeric structures instead of the normal 7. A single maternal administration of a low dose of the vitamin A metabolite retinoic acid was sufficient to compensate the requirement for Hoxa1 function in Hoxa1-deficient mice.