

**HOPX Antibody**  
**Catalog # ASC11910****Specification**

---

**HOPX Antibody - Product Information**

Application	WB, IHC, IF
Primary Accession	<a href="#">Q9BPY8</a>
Other Accession	<a href="#">NP_001138932</a> , <a href="#">224451025</a>
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	Predicted: 12 kDa

Application Notes	<b>Observed: 183 kDa KDa</b> HOPX antibody can be used for detection of HOPX by Western blot at 1 - 2 µg/mL. Antibody can also be used for immunohistochemistry starting at 5 µg/mL. For immunofluorescence start at 20 µg/mL.
-------------------	---

**HOPX Antibody - Additional Information**

Gene ID **84525**

**Target/Specificity**

HOPX; HOPX antibody is human specific. At least three isoforms of HOPX are known to exist; this antibody will detect all three isoforms.

**Reconstitution & Storage**

HOPX antibody can be stored at 4°C for three months and -20°C, stable for up to one year.

**Precautions**

HOPX Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**HOPX Antibody - Protein Information**

**Name** HOPX

**Synonyms** HOD, HOP, LAGY, NECC1, OB1

**Function**

Atypical homeodomain protein which does not bind DNA and is required to modulate cardiac growth and development. Acts via its interaction with SRF, thereby modulating the expression of SRF- dependent cardiac-specific genes and cardiac development. Prevents SRF- dependent transcription either by inhibiting SRF binding to DNA or by recruiting histone deacetylase (HDAC) proteins that prevent transcription by SRF. Overexpression causes cardiac hypertrophy (By similarity). May act as a tumor suppressor. Acts as a co-chaperone for HSPA1A and HSPA1B chaperone proteins and assists in chaperone-mediated protein refolding (PubMed:<a

href="http://www.uniprot.org/citations/27708256" target="\_blank">27708256</a>).

#### Cellular Location

Nucleus {ECO:0000250|UniProtKB:Q8R1H0}. Cytoplasm {ECO:0000250|UniProtKB:Q8R1H0}

#### Tissue Location

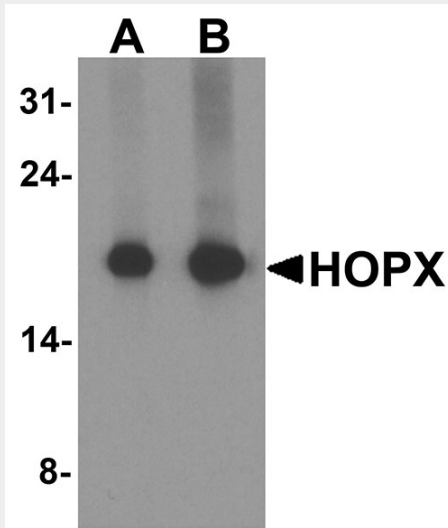
Widely expressed. Expressed in the heart, brain, placenta, lung, skeletal and smooth muscles, uterus, urinary bladder, kidney and spleen. Down-regulated in some types of cancer such as lung cancer, choriocarcinoma, head and neck squamous cell carcinoma and oral squamous cell carcinoma.

### HOPX Antibody - Protocols

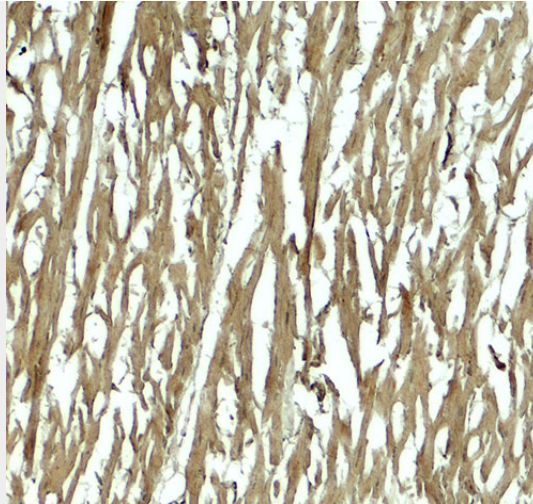
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

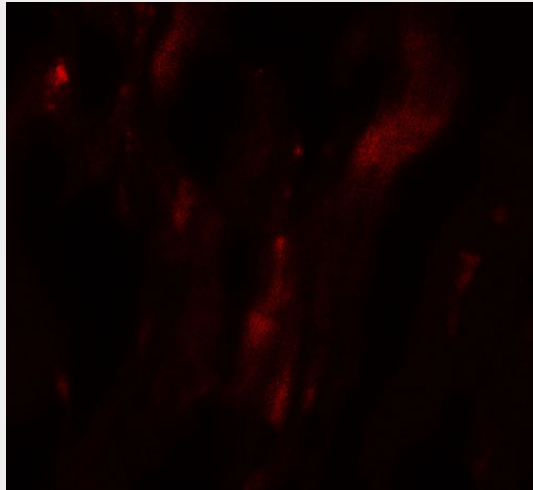
### HOPX Antibody - Images



Western blot analysis of HOPX in human brain tissue lysate with HOPX antibody at (A) 1 and (B) 2 µg/ml.



Immunohistochemistry of HOPX in human heart tissue with HOPX antibody at 5 µg/mL.



Immunofluorescence of HOPX in human heart tissue with HOPX antibody at 20 µg/mL.

### **HOPX Antibody - Background**

HOPX is a small homeodomain protein that lacks normally conserved residues required for DNA binding (1). It is thought to act downstream of NKX2-5 and modulates serum response factor (SRF)-dependent cardiac-specific gene expression and cardiac development (1). HOPX also acts a tumor suppressor gene in multiple tumors and cancer cell lines (2,3). HOPX has been reported to regulate the proliferation/differentiation homeostasis in different cell types, including keratinocytes (4).

### **HOPX Antibody - References**

Chen F, Kook H, Milewski R, et al. Hop is an unusual homeobox gene that modulates cardiac development. *Cell* 2002; 110:713-23.  
Asanoma K, Matsuda T, Kondo H, et al. NECC1, a candidate choriocarcinoma suppressor gene that encodes a homeodomain consensus motif. *Genomics* 2003; 81:15-25.  
Kato H, Yamashita K, Waraya M, et al. Epigenetic silencing of HOPX promotes cancer progression in colorectal cancer. *Neoplasia* 2012; 14:559-71.  
Obarzanek-Fojt M, Favre B, Kypriotou M, et al. Homeodomain-only protein HOP is a novel modulator of late differentiation in keratinocytes. *Eur. J. Cell Biol.* 2011; 90:279-90.