

**HAND2 Antibody (Center)**  
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP17008C****Specification**

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**HAND2 Antibody (Center) - Product Information**

Application	IF, WB,E
Primary Accession	<a href="#">P61296</a>
Other Accession	<a href="#">P57101</a> , <a href="#">P61295</a> , <a href="#">Q61039</a> , <a href="#">Q90690</a> , <a href="#">NP_068808.1</a>
Reactivity	Human
Predicted	Chicken, Mouse, Rat, Xenopus
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	23666
Antigen Region	81-110

**HAND2 Antibody (Center) - Additional Information****Gene ID** 9464**Other Names**

Heart- and neural crest derivatives-expressed protein 2, Class A basic helix-loop-helix protein 26, bHLHa26, Deciduum, heart, autonomic nervous system and neural crest derivatives-expressed protein 2, dHAND, HAND2, BHLHA26, DHAND

**Target/Specificity**

This HAND2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 81-110 amino acids from the Central region of human HAND2.

**Dilution**

IF~~1:10~50

WB~~1:1000

E~~Use at an assay dependent concentration.

**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

**Storage**

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

**Precautions**

HAND2 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

**HAND2 Antibody (Center) - Protein Information**

**Name** HAND2

**Synonyms** BHLHA26, DHAND

**Function** Essential for cardiac morphogenesis, particularly for the formation of the right ventricle and of the aortic arch arteries. Required for vascular development and regulation of angiogenesis, possibly through a VEGF signaling pathway. Also plays an important role in limb development, particularly in the establishment of anterior- posterior polarization, acting as an upstream regulator of sonic hedgehog (SHH) induction in the limb bud. Is involved in the development of branchial arches, which give rise to unique structures in the head and neck. Binds DNA on E-box consensus sequence 5'-CANNTG- 3' (By similarity).

**Cellular Location**

Nucleus {ECO:0000255|PROSITE-ProRule:PRU00981}.

**Tissue Location**

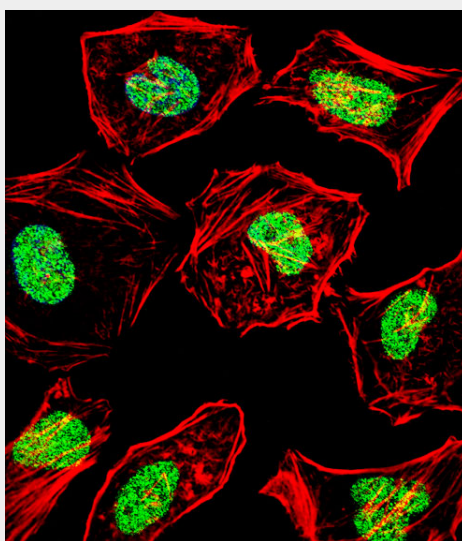
Heart.

**HAND2 Antibody (Center) - Protocols**

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

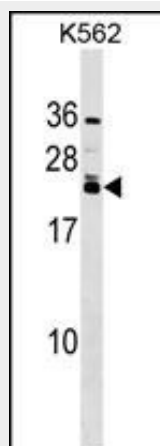
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**HAND2 Antibody (Center) - Images**



Fluorescent confocal image of HeLa cell stained with HAND2 Antibody (Center)(Cat#AP17008c). HeLa cells were fixed with 4% PFA (20 min), permeabilized with Triton X-100 (0.1%, 10 min), then incubated with HAND2 primary antibody (1:25, 1 h at 37°C). For

secondary antibody, Alexa Fluor® 488 conjugated donkey anti-rabbit antibody (green) was used (1:400, 50 min at 37°C). Cytoplasmic actin was counterstained with Alexa Fluor® 555 (red) conjugated Phalloidin (7 units/ml, 1 h at 37°C). Nuclei were counterstained with DAPI (blue) (10 µg/ml, 10 min). HAND2 immunoreactivity is localized to Nucleus significantly.



HAND2 Antibody (Center) (Cat. #AP17008c) western blot analysis in K562 cell line lysates (35 µg/lane). This demonstrates the HAND2 antibody detected the HAND2 protein (arrow).

#### **HAND2 Antibody (Center) - Background**

The protein encoded by this gene belongs to the basic helix-loop-helix family of transcription factors. This gene product is one of two closely related family members, the HAND proteins, which are asymmetrically expressed in the developing ventricular chambers and play an essential role in cardiac morphogenesis. Working in a complementary fashion, they function in the formation of the right ventricle and aortic arch arteries, implicating them as mediators of congenital heart disease. In addition, this transcription factor plays an important role in limb and branchial arch development.

#### **HAND2 Antibody (Center) - References**

Shen, L., et al. Chin. Med. J. 123(13):1623-1627(2010)  
Jugessur, A., et al. PLoS ONE 5 (7), E11493 (2010) :  
Voth, H., et al. BMC Mol. Biol. 10, 28 (2009) :  
Morikawa, Y., et al. Circ. Res. 103(12):1422-1429(2008)  
Han, Z., et al. Development 133(6):1175-1182(2006)

#### **HAND2 Antibody (Center) - Citations**

- [Distinct HAND2/HAND2-AS1 Expression Levels May Fine-Tune Mesenchymal and Epithelial Cell Plasticity of Human Mesenchymal Stem Cells](#)