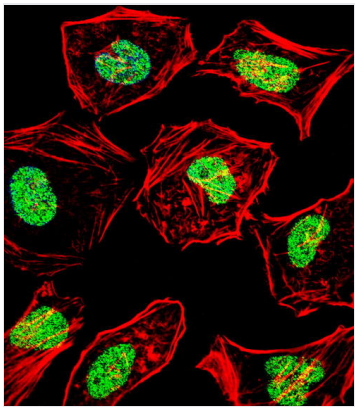
HAND2 Antibody – Rabbit Polyclonal

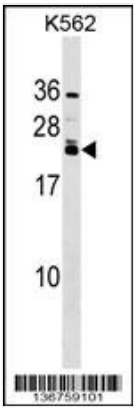
PRODUCT OVERVIEW

Product Name	HAND2, Polyclonal Antibody
Full Product Name	HAND2, ID (HAND2, BHLHA26, DHAND, Heart-and neural crest derivatives-expressed protein 2, Class A basic helix-loop-helix protein 26, Deciduum, heart, autonomic nervous system and neural crest derivatives-expressed protein 2) (Azide free) (HRP)
Product Gene Name	anti-HAND2 antibody
Product Synonym Names	HAND2; BHLHA26; DHAND; Heart-and neural crest derivatives-expressed protein 2; Class A basic helix-loop-helix protein 26; Deciduum; heart; autonomic nervous system and neural crest derivatives-expressed protein 2
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with Horseradish Peroxidase (HRP).
Purity/Purification	Purified by Protein A Affinity Chromatography.
Preparation and Storage	Store product at 4 degree C if to be used immediately within two weeks. For long-term storage, aliquot to avoid repeated freezing and thawing and store at -20 degree C. Aliquots are stable at -20 degree C for 12 months after receipt. Dilute required amount only prior to immediate use. Further dilutions can be made in assay buffer. Note: Sodium azide is a potent inhibitor of peroxidase and should not be added to HRP conjugates. For maximum recovery of product, centrifuge the original vial after thawing and prior to removing the cap.
Molecular Weight	20,269 Da
OMIM	602407
3D Structure	ModBase 3D Structure for P61296
Immunogen	HAND2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 80-110 amino acids from the Central region of human HAND2.
Conjugate	HRP
Note	Preservative Free
Product Categories/Family for anti-HAND2 antibody	Antibodies; Transcription Factors
Applications Tested/Suitable for anti-HAND2 antibody	Western Blot (WB), ELISA (EIA)
Application Notes for anti-HAND2 antibody	WB: 1:100-500 ELISA: 1:1,000 Applications are based on unconjugated antibody.
Related Product Information for anti-HAND2 antibody	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.

Product References and Citations for anti-HAND2 antibody	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).
Other Notes	Small volumes of anti-HAND2 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for HAND2 purchase	MBS6305387 is an antibody targeting HAND2. Also known as HAND2, ID (HAND2, BHLHA26, DHAND, Heart-and neural crest derivatives-expressed protein 2, Class A basic helix-loop-helix protein 26, Deciduum, heart, autonomic nervous system and neural crest derivatives-expressed protein 2) (Azide free) (HRP). Reactive in Human. Host: Rabbit.



Immunofluorescence (IF) of anti-HAND2 antibody
Fluorescent confocal image of Hela cell stained with HAND2 Antibody (Center).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 degree C). For secondary antibody, Alexa Fluor 488 conjugated donkey anti-rabbit antibody (green) was used (1:400, 50 min at 37 degree C).Cytoplasmic actin was counterstained with Alexa Fluor 555 (red) conjugated Phalloidin (7units/ml, 1 h at 37 degree C). Nuclei were counterstained with DAPI (blue) (10 ug/ml, 10 min).HAND2 immunoreactivity is localized to Nucleus significantly.



Western Blot (WB) of anti-HAND2 antibody
HAND2 Antibody (Center) western blot analysis in K562 cell line lysates (35ug/lane).This demonstrates the HAND2 antibody detected the HAND2 protein (arrow).

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for HAND2. It may not necessarily be applicable to this product.

NCBI GI #	88999597
NCBI GeneID	9464
NCBI Accession #	NP_068808.1
UniProt Primary Accession #	P61296
UniProt Secondary Accession #	O95300; O95301; P97833; Q494T1; B6ECG9
UniProt Related Accession #	P61296
GenBank Nucleotide #	NM_021973
NCBI Official Full Name	Homo sapiens heart and neural crest derivatives expressed 2 (HAND2), mRNA
NCBI Official Synonym Full Names	heart and neural crest derivatives expressed 2
NCBI Official Symbol	HAND2
NCBI Official Synonym Symbols	Hed; dHand; DHAND2; Thing2; bHLHa26
UniProt Protein Name	Heart- and neural crest derivatives-expressed protein 2
UniProt Synonym Protein Names	Class A basic helix-loop-helix protein 26; bHLHa26; Deciduum, heart, autonomic nervous system and neural crest derivatives-expressed protein 2; dHAND
Protein Family	Heart- and neural crest derivatives-expressed protein

UniProt Gene Name	HAND2
UniProt Synonym Gene Names	BHLHA26; DHAND; bHLHa26; dHAND
UniProt Entry Name	HAND2_HUMAN
NCBI Protein Information	heart- and neural crest derivatives-expressed protein 2; basic helix-loop-helix transcription factor HAND2; class A basic helix-loop-helix protein 26; deciduum, heart, autonomic nervous system and neural crest derivatives-expressed protein 2
UniProt Comments for HAND2	HAND2: 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. Plays also 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'. Protein type: Transcription factor; DNA-binding Chromosomal Location of Human Ortholog: 4q33 Cellular Component: transcription factor complex; protein complex; nuclear chromatin Molecular Function: protein binding; protein homodimerization activity; transcription activator binding; AT DNA binding; protein heterodimerization activity; transcription coactivator activity; transcription factor binding Biological Process: adult heart development; heart morphogenesis; tongue development; neural crest cell development; thymus development; transcription, DNA-dependent; in utero embryonic development; apoptosis; negative regulation of transcription factor activity; positive regulation of transcription, DNA-dependent; heart development; mesenchymal cell proliferation; palate development; negative regulation of DNA binding; odontogenesis of dentine-containing teeth; peripheral nervous system neuron development; sympathetic nervous system development; regulation of transcription, DNA-dependent; suckling behavior; positive regulation of transcription from RNA polymerase II promoter; negative regulation of osteoblast differentiation; angiogenesis; heart looping; embryonic digit morphogenesis
Research Articles on HAND2	**1.** suggest that HAND2 plays a key role in the regulation of progestin-induced decidualization of human endometrial stromal cells.
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