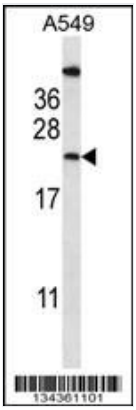
HAND1 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	HAND1, Polyclonal Antibody
Full Product Name	HAND1, ID (HAND1, BHLHA27, EHAND, Heart-and neural crest derivatives-expressed protein 1, Class A basic helix-loop-helix protein 27, Extraembryonic tissues, heart, autonomic nervous system and neural crest derivatives-expressed protein 1) (Biotin)
Product Gene Name	anti-HAND1 antibody
Product Synonym Names	HAND1; BHLHA27; EHAND; Heart-and neural crest derivatives-expressed protein 1; Class A basic helix-loop-helix protein 27; Extraembryonic tissues; heart; autonomic nervous system and neural crest derivatives-expressed protein 1
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 Biotin.
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. For maximum recovery of product, centrifuge the original vial after thawing and prior to removing the cap.
Molecular Weight	23,627 Da
Chromosome Location	Chromosome: 5; NC_000005.9 (153854532..153857824, complement). Location: 5q33
OMIM	602406
3D Structure	ModBase 3D Structure for O96004
Immunogen	HAND1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 75-105 amino acids from the Central region of human HAND1.
Conjugate	Biotin
Note	Preservative Free
Product Categories/Family for anti-HAND1 antibody	Antibodies; Transcription Factors
Applications Tested/Suitable for anti-HAND1 antibody	Western Blot (WB), ELISA (EIA)
Application Notes for anti-HAND1 antibody	WB: 1:100-500 ELISA: 1:1,000 Applications are based on unconjugated antibody.
Related Product Information for anti-HAND1 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, it has been suggested that this transcription factor may be required for early trophoblast differentiation.

Product References and Citations for anti-HAND1 antibody	Reamon-Buettner, S.M., et al. Hum. Mol. Genet. 18(19):3567-3578(2009). Martinez Hoyos, J., et al. Oncogene 28(6):876-885(2009). Reamon-Buettner, S.M., et al. Hum. Mol. Genet. 17(10):1397-1405(2008). Morin, S., et al. J. Biol. Chem. 280(37):32272-32278(2005). Hill, A.A., et al. Mol. Cell. Biol. 24(22):9835-9847(2004).
Other Notes	Small volumes of anti-HAND1 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 HAND1 purchase	MBS6305374 is an antibody targeting HAND1. Also known as HAND1, ID (HAND1, BHLHA27, EHAND, Heart-and neural crest derivatives-expressed protein 1, Class A basic helix-loop-helix protein 27, Extraembryonic tissues, heart, autonomic nervous system and neural crest derivatives-expressed protein 1) (Biotin). Reactive in Human. Host: Rabbit.



Western Blot (WB) of anti-HAND1 antibody
HAND1 Antibody (Center) western blot analysis in A549 cell line lysates (35ug/lane).This demonstrates the HAND1 antibody detected the HAND1 protein (arrow).

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for HAND1. It may not necessarily be applicable to this product.

NCBI GI #	4758506
NCBI GeneID	9421
NCBI Accession #	NP_004812.1
UniProt Primary Accession #	O96004
UniProt Related Accession #	O96004
GenBank Nucleotide #	NM_004821.2
NCBI Official Full Name	heart- and neural crest derivatives-expressed protein 1
NCBI Official Synonym Full Names	heart and neural crest derivatives expressed 1
NCBI Official Symbol	HAND1
NCBI Official Synonym Symbols	Hxt; eHand; Thing1; bHLHa27
UniProt Protein Name	Heart- and neural crest derivatives-expressed protein 1
UniProt Synonym Protein Names	Class A basic helix-loop-helix protein 27; bHLHa27; Extraembryonic tissues, heart, autonomic nervous system and neural crest derivatives-expressed protein 1
Protein Family	Heart- and neural crest derivatives-expressed protein
UniProt Gene Name	HAND1
UniProt Synonym Gene Names	BHLHA27; EHAND; bHLHa27; eHAND
UniProt Entry Name	HAND1_HUMAN

NCBI Protein Information	heart- and neural crest derivatives-expressed protein 1; class A basic helix-loop-helix protein 27; extraembryonic tissues, heart, autonomic nervous system and neural crest derivatives-expressed protein 1
UniProt Comments for HAND1	HAND1: Transcription factor that plays an essential role in both trophoblast-giant cells differentiation and in cardiac morphogenesis. In the adult, could be required for ongoing expression of cardiac-specific genes. Binds the DNA sequence 5'- NRTCTG-3' (non-canonical E-box). Protein type: Transcription factor; Nucleolus; Cell development/differentiation; DNA-binding Chromosomal Location of Human Ortholog: 5q33 Cellular Component: nucleoplasm; cytoplasm; nucleolus; nucleus Molecular Function: identical protein binding; protein binding; protein homodimerization activity; enzyme binding; protein heterodimerization activity; transcription coactivator activity; bHLH transcription factor binding; transcription factor binding; transcription corepressor activity Biological Process: transcription from RNA polymerase II promoter; blastocyst development; negative regulation of transcription factor activity; heart development; negative regulation of transcription from RNA polymerase II promoter; odontogenesis of dentine-containing teeth; trophectodermal cell differentiation; mesoderm formation; ventricular cardiac muscle morphogenesis; embryonic heart tube development; positive regulation of transcription from RNA polymerase II promoter; angiogenesis; heart looping; negative regulation of transcription, DNA-dependent
Research Articles on HAND1	**1.** This is the first report of mutations in the HAND1 gene in Chinese patients with VSD and provides new insight into the etiology of VSD
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