HAND1 Blocking Peptide (N-Term) Blocking Peptide

PRODUCT OVERVIEW

Product Name	HAND1, Blocking Peptide
Full Product Name	HAND1 Blocking Peptide (N-term)
Product Gene Name	HAND1 blocking peptide
Product Synonym Gene Name	BHLHA27; EHAND
Product Synonym Names	Heart- and neural crest derivatives-expressed protein 1; Class A basic helix-loop-helix protein 27; bHLHa27; Extraembryonic tissues; heart; autonomic nervous system and neural crest derivatives-expressed protein 1; eHAND; HAND1; BHLHA27; EHAND
Form/Format	Synthetic peptide was lyophilized with 100% acetonitrile and is supplied as a powder. Reconstitute with 0.1 ml DI water for a final concentration of 1 mg/ml.
Specificity	The synthetic peptide sequence is selected from aa 83-96 of HUMAN HAND1
Preparation and Storage	Maintain refrigerated at 2-8 degree C for up to 6 months. For long term storage store at -20 degree C.
Antibody/Peptide Pairs	HAND1 peptide (MBS9229891) is used for blocking the activity of HAND1 antibody (MBS9204839)
Molecular Weight	23,627 Da
OMIM	602406
Cellular Location	Nucleus, nucleoplasm. Nucleus, nucleolus. Note: Interaction with MDFIC sequesters it into the nucleolus, preventing the transcription factor activity Phosphorylation by PLK4 disrupts the interaction with MDFIC and releases it from the nucleolus, leading to transcription factor activity (By similarity).
Tissue Location	Heart.
Related Product Information for HAND1 blocking peptide	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) (By similarity).
Other Notes	Small volumes of HAND1 blocking peptide 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	MBS9229891 is a blocking peptide targeting HAND1. Also known as HAND1 Blocking Peptide (N-term).

ADDITIONAL DETAILS

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

NCBI GI #	10720015
NCBI GeneID	9421
NCBI Accession #	O96004.1
UniProt Primary Accession #	O96004
UniProt Related Accession #	O96004
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; eHAND
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
NCBI Summary for HAND1	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. [provided by RefSeq, Jul 2008]
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: cytoplasm; nucleus Molecular Function: bHLH transcription factor binding; identical protein binding; protein binding; transcription coactivator activity; transcription corepressor activity; transcription factor binding Biological Process: angiogenesis; blastocyst development; embryonic heart tube development; heart development; heart looping; negative regulation of transcription factor activity; negative regulation of transcription from RNA polymerase II promoter; negative regulation of transcription, DNA-dependent; positive regulation of transcription from RNA polymerase II promoter; transcription from RNA polymerase II promoter; trophectodermal cell differentiation; ventricular cardiac muscle morphogenesis
Research Articles on HAND1	**1.** Combined expression of NKX2-5, HAND1, and NOTCH1 coordinately contribute to cardiac malformations in Hhypoplastic left heart syndrome.
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