HNF1A Peptide - N-Terminal Region Blocking Peptide

PRODUCT OVERVIEW

Product Name	HNF1A, Blocking Peptide
Full Product Name	HNF1A Peptide - N-terminal region
Product Gene Name	HNF1A blocking peptide
Product Synonym Gene Name	HNF1; LFB1; MODY3; TCF1; TCF-1; HNF-1A; IDDM20
Form/Format	Lyophilized powder
Preparation and Storage	Add 100ul of sterile PBS. Final peptide concentration is 1 mg/ml in PBS. For longer periods of storage, store at -20 degree C. Avoid repeat freeze-thaw cycles.
Antibody/Peptide Pairs	HNF1A peptide (MBS3238564) is used for blocking the activity of HNF1A antibody (MBS3213623)
Molecular Weight	67kDa
OMIM	142330
Product Categories/Family for HNF1A blocking peptide	Peptide
Applications Tested/Suitable for HNF1A blocking peptide	Western Blot (WB)
Related Product Information for HNF1A blocking peptide	This is a synthetic peptide designed for use in combination with anti-HNF1A antibody made Target Description: HNF1A is required for the expression of several liver specific genes. HNF1A binds to the inverted palindrome 5'-GTTAATNATTAAC-3'.
Other Notes	Small volumes of HNF1A 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 HNF1A purchase	MBS3238564 is a blocking peptide targeting HNF1A. Also known as HNF1A Peptide - N-terminal region.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for HNF1A. It may not necessarily be applicable to this product.

NCBI GI #	256542297
NCBI GeneID	6927
NCBI Accession #	NP_000536
UniProt Primary Accession #	P20823
UniProt Related Accession #	P20823
GenBank Nucleotide #	NM_000545
NCBI Official Full Name	hepatocyte nuclear factor 1-alpha isoform 2
NCBI Official Synonym Full Names	HNF1 homeobox A
NCBI Official Symbol	HNF1A
NCBI Official Synonym Symbols	HNF1; LFB1; TCF1; HNF4A; MODY3; TCF-1; HNF-1A; IDDM20

UniProt Protein Name	Hepatocyte nuclear factor 1-alpha
UniProt Synonym Protein Names	Liver-specific transcription factor LF-B1; LFB1; Transcription factor 1
Protein Family	Hepatocyte nuclear factor
UniProt Gene Name	HNF1A
UniProt Synonym Gene Names	TCF1; HNF-1-alpha; HNF-1A; LFB1; TCF-1
UniProt Entry Name	HNF1A_HUMAN
NCBI Protein Information	hepatocyte nuclear factor 1-alpha
NCBI Summary for HNF1A	The protein encoded by this gene is a transcription factor required for the expression of several liver-specific genes. The encoded protein functions as a homodimer and binds to the inverted palindrome 5'-GTTAATNATTAAC-3'. Defects in this gene are a cause of maturity onset diabetes of the young type 3 (MODY3) and also can result in the appearance of hepatic adenomas. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Apr 2015]
UniProt Comments for HNF1A	HNF1A: Transcriptional activator that regulates the tissue specific expression of multiple genes, especially in pancreatic islet cells and in liver. Required for the expression of several liver specific genes. Binds to the inverted palindrome 5'- GTTAATNATTAAC-3'. Defects in HNF1A are a cause of hepatic adenomas familial (HEPAF). Hepatic adenomas are rare benign liver tumors of presumable epithelial origin that develop in an otherwise normal liver. Hepatic adenomas may be single or multiple. They consist of sheets of well-differentiated hepatocytes that contain fat and glycogen and can produce bile. Bile ducts or portal areas are absent. Kupffer cells, if present, are reduced in number and are non-functional. Conditions associated with adenomas are insulin-dependent diabetes mellitus and glycogen storage diseases (types 1 and 3). Bi-allelic inactivation of HNF1A, whether sporadic or associated with MODY3, may be an early step in the developmant of some hepatocellular carcinomas. Defects in HNF1A are the cause of maturity-onset diabetes of the young type 3 (MODY3); also symbolized MODY-3. MODY is a form of diabetes that is characterized by an autosomal dominant mode of inheritance, onset in childhood or early adulthood (usually before 25 years of age), a primary defect in insulin secretion and frequent insulin-independence at the beginning of the disease. Defects in HNF1A are the cause of susceptibility to diabetes mellitus insulin-dependent type 20 (IDDM20). IDDM20 is a multifactorial disorder of glucose homeostasis that is characterized by susceptibility to ketoacidosis in the absence of insulin therapy. Clinical fetaures are polydipsia, polyphagia and polyuria which result from hyperglycemia-induced osmotic diuresis and secondary thirst. These features can result in long-term complications that affect the eyes, kidneys, nerves, and blood vessels. Belongs to the HNF1 homeobox family. 3 isoforms of the human protein are produced by alternative splicing. Protein type: DNA-binding; Transcription factor Chromosomal Location of Human Ortholog: 12q24.2 Cellular Component: nucleoplasm; protein complex; cytoplasm; nucleus Molecular Function: protein dimerization activity; protein binding; protein homodimerization activity; DNA binding; protein heterodimerization activity; transcription factor activity Biological Process: regulation of transcription from RNA polymerase II promoter; transcription, DNA-dependent; insulin secretion; glucose import; positive regulation of transcription, DNA-dependent; positive regulation of transcription from RNA polymerase II promoter; glucose homeostasis Disease: Diabetes Mellitus, Insulin-dependent, 20; Diabetes Mellitus, Insulin-dependent; Hepatic Adenomas, Familial; Maturity-onset Diabetes Of The Young, Type 3; Renal Cell Carcinoma, Nonpapillary; Diabetes Mellitus, Noninsulin-dependent
Research Articles on HNF1A	**1.** we established an HNF1A-dependent gene signature in PDA cells that significantly correlated with reduced survivability in patients. These findings identify HNF1A as a central transcriptional regulator of PCSC properties and novel oncogene in PDA
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