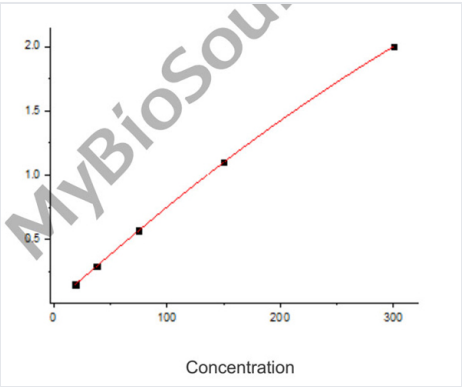
Proenkephalin (PENK) ELISA Kit for Human

PRODUCT OVERVIEW

Product Name	Proenkephalin (PENK), ELISA Kit
Full Product Name	Human Proenkephalin (PENK) ELISA Kit
Product Gene Name	PENK elisa kit
Product Synonym Names	PENK; Enkephalin A; preproenkephalin
Species Reactivity	Human
Assay Type	Sandwich
Samples	Human serum, cell culture supernates and other biological fluids
Detection Range	18.75 pg/ml - 300 pg/ml
Sensitivity	< 5pg/ml
Preparation and Storage	Store at 2-8 degree C.
Inter-assay Precision	Three samples of known concentration were tested in twenty separate assays to assess inter-assay precision. Assays were performed by at least three technicians using two lots of components. The CV (%)?11%.
Intra-assay Precision	Four samples of known concentration were tested twenty times on one plate to assess intra-assay precision. The CV (%)?9%.
OMIM	131330
3D Structure	ModBase 3D Structure for P01210
Related Product Information for PENK elisa kit	Background: Preproenkephalin has 267 amino acids, as does proopiomelanocortin. Both genes contain 2 introns. In both, all the repeated enkephalin or melanotropin sequences are encoded by a single large exon (exon 3). Preproenkephalin mRNA encodes 4 copies of met-enkephalin, 2 copies of met-enkephalin extended sequences, and 1 copy of leu-enkephalin. Each copy is flanked by paired basic amino acids which are presumably recognized by the processing protease. The corresponding amino acid sequence shows that the precursor is 267 amino acids long and contains 6 interspersed Met-enkephalin sequences and 1 Leu-enkephalin sequence. The precursor does not contain the sequences of dynorphin, alpha-neo-endorphin or beta-endorphin. Principle of the Assay: Human Proenkephalin (PENK) ELISA Kit employs a two-site sandwich ELISA to quantitate PENK in samples. An antibody specific for PENK has been pre-coated onto a microplate. Standards and samples are pipetted into the wells and any PENK present is bound by the immobilized antibody. After removing any unbound substances, HRP-Conjugated Human PENK detection antibody is added to the wells. Following a wash to remove any unbound HRP reagent, a Chromogen solution is added to the wells and color develops in proportion to the amount of PENK bound in the initial step. The color development is stopped and the intensity of the color is measured.
Other Notes	Small volumes of PENK elisa kit 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 PENK purchase	MBS9714916 is a ready-to-use microwell, strip-or-full plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the Proenkephalin (PENK) ELISA Kit target analytes in biological samples. The concentration gradients of the kit standards or positive controls render a theoretical kit detection range in biological research samples containing PENK. The ELISA analytical biochemical technique of the MBS9714916 kit is based on PENK antibody-PENK antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect PENK antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, PENK. Appropriate sample types may include undiluted body fluids and/or tissue homogenates, secretions. Quality control assays assessing reproducibility identified the intra-assay CV (%) and inter-assay CV(%).



Typical Testing Data/Standard Curve (for reference only) of PENK elisa kit

ADDITIONAL DETAILS

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

NCBI GI #	208879446
NCBI GeneID	5179
NCBI Accession #	NP_001129162.1
UniProt Primary Accession #	P01210
UniProt Related Accession #	P01210
GenBank Nucleotide #	NP_001129162.1
NCBI Official Full Name	proenkephalin-A preproprotein
NCBI Official Synonym Full Names	proenkephalin
NCBI Official Symbol	PENK
NCBI Official Synonym Symbols	PE; PENK-A
UniProt Protein Name	Proenkephalin-A
UniProt Synonym Protein Names	Opioid growth factor; OGF
Protein Family	Proenkephalin
UniProt Gene Name	PENK
UniProt Synonym Gene Names	OGF
UniProt Entry Name	PENK_HUMAN
NCBI Protein Information	proenkephalin-A
NCBI Summary for PENK	This gene encodes a preproprotein that is proteolytically processed to generate multiple protein products. These products include the pentapeptide opioids Met-enkephalin and Leu-enkephalin, which are stored in synaptic vesicles, then released into the synapse where they bind to mu- and delta-opioid receptors to modulate the perception of pain. Other non-opioid cleavage products may function in distinct biological activities. [provided by RefSeq, Jul 2015]

UniProt Comments for PENK	PENK: Met- and Leu-enkephalins compete with and mimic the effects of opiate drugs. They play a role in a number of physiologic functions, including pain perception and responses to stress. PENK(114-133) and PENK(237-258) increase glutamate release in the striatum. PENK(114-133) decreases GABA concentration in the striatum. Belongs to the opioid neuropeptide precursor family. Protein type: Secreted; Secreted, signal peptide; Hormone Chromosomal Location of Human Ortholog: 8q23-q24 Cellular Component: extracellular region Molecular Function: neuropeptide hormone activity; protein binding; opioid peptide activity Biological Process: startle response; behavioral fear response; neuropeptide signaling pathway; locomotory behavior; sensory perception of pain; signal transduction
Research Articles on PENK	**1.** High PENK is associated with increased risk of CKD defined by eGFR in men, but not in women. No association of PENK with CKD defined by urinary albumin excretion UAE was observed.
Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.
Disclaimer	While every efforts were made to ensure the accuracy of the information provided in this datasheet, MyBioSource will not be liable for any omissions or errors contained herein. MyBioSource reserves the right to make changes to this datasheet at any time without prior notice. It is the responsibility of the customer to report product performance issues to MyBioSource within 30 days of receipt of the product. Please visit our Terms & Conditions page for more information.
Product Note	Select online data sheet information is drawn from bioinformatics databases, occasionally resulting in ambiguous or non-relevant product information. It is the responsibility of the customer to review, verify, and evaluate the information to make sure it matches their requirements before purchasing the kit. Our ELISA Kit assays are dynamic research tools and sometimes they may be updated and improved. If the format of this assay is important to you then please request the current manual or contact our technical support team with a presales inquiry before placing an order. We will confirm the current details of the assay. We cannot guarantee the sample manual posted online is the most current manual, it is intended to serve as an example only. Please refer to the instructions For Use provided with the assay kit for precise details.

For Research Use Only. Not for use in diagnostic or therapeutic procedures.

MyBioSource | Tel: +1.858.633.0165 | Fax: +1.858.633.0166 | mybiosource.com/contact-us
Online datasheet: https://www.mybiosource.com/human-elisa-kits/proenkephalin-penk/9714916