Homeobox Protein NANOG (NANOG) Mus Musculus Molossinus Recombinant Protein

PRODUCT OVERVIEW

Product Name	Homeobox protein NANOG (Nanog), Recombinant Protein
Full Product Name	Recombinant Mus musculus molossinus Homeobox protein NANOG (Nanog)
Product Gene Name	Nanog recombinant protein
Product Synonym Gene Name	Nanog
Sequence	MSVGLPGPHS LPSSEEASNS GNASSMPAVF HPENYSCLQG SATEMLCTEA ASPRPSSEDL PLQGSPDSST SPKQKLSSPE ADKGPEEEEN KVLARKQKMR TVFSQAQLCA LKDRFQKQKY LSLQQMQELS SILNLSYKQV KTWFQNQRMK CKRWQKNQWL KTSNGLIQKG SAPVEYPSIH CSYPQGYLVN ASGSLSMWGS QTWTNPTWSS QTWTNPTWNN QTWTNPTWSS QAWTAQSWNG QPWNAAPLHN FGEDFLQPYI QLQQNSSASD LEVNLEATRE SHAHFSTPQA LELFLNYSVT PPGEI
Host	E Coli or Yeast or Baculovirus or Mammalian Cell
Form/Format	Lyophilized or liquid (Format to be determined during the manufacturing process)
Purity/Purification	Greater or equal to 85% purity as determined by SDS-PAGE. (lot specific)
Preparation and Storage	Store at -20 degrees C. For long-term storage, store at -20 degrees C or -80 degrees C. Store working aliquots at 4 degrees C for up to one week. Repeated freezing and thawing is not recommended.
Molecular Weight	34,194 Da
Sequence Positions	1-305, Full length protein
Tag Information	This protein contains an N-terminal tag and may also contain a C-terminal tag. Tag types are determined by various factors including tag-protein stability, please inquire for tag information.
Sterility	Sterile filter available upon request.
Endotoxin	Low endotoxin available upon request.
3D Structure	ModBase 3D Structure for Q5TM83
Species	Mus musculus molossinus (Japanese house mouse)
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Related Product Information for Nanog recombinant protein	MBS1333999 is a recombinant protein targeting Nanog. Also known as Recombinant Mus musculus molossinus Homeobox protein NANOG (Nanog). Host: E Coli or Yeast or Baculovirus or Mammalian Cell.
Other Notes	Small volumes of Nanog recombinant protein 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.

ADDITIONAL DETAILS

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

NCBI GI #	81889643
NCBI GeneID	71950
NCBI Accession #	Q5TM83.1
UniProt Primary Accession #	Q5TM83
UniProt Related Accession #	Q5TM83; Q80Z64

NCBI Official Full Name	Homeobox protein NANOG
NCBI Official Synonym Full Names	Nanog homeobox
NCBI Official Symbol	Nanog
NCBI Official Synonym Symbols	ENK; ecat4; 2410002E02Rik
UniProt Protein Name	Homeobox protein NANOG
UniProt Synonym Protein Names	Homeobox transcription factor Nanog
Protein Family	Homeobox protein
UniProt Gene Name	Nanog
UniProt Synonym Gene Names	Stm1
NCBI Protein Information	homeobox protein NANOG
NCBI Summary for Nanog	The protein encoded by this gene is a DNA binding homeobox transcription factor involved in embryonic stem (ES) cell proliferation, renewal, and pluripotency. The encoded protein can block ES cell differentiation and can also autorepress its own expression in differentiating cells. Several transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Sep 2015]
UniProt Comments for Nanog	Transcription regulator involved in inner cell mass and embryonic stem (ES) cells proliferation and self-renewal. Imposes pluripotency on ES cells and prevents their differentiation towards extraembryonic endoderm and trophectoderm lineages. Blocks bone morphogenetic protein-induced mesoderm differentiation of ES cells by physically interacting with SMAD1 and interfering with the recruitment of coactivators to the active SMAD transcriptional complexes. Acts as a transcriptional activator or repressor. Binds optimally to the DNA consensus sequence 5'-TAAT[GT][GT]-3' or 5'-[CG][GA][CG]C[GC]ATTAN[GC]-3'. Binds to the POU5F1/OCT4 promoter. Able to autorepress its expression in differentiating (ES) cells: binds to its own promoter following interaction with ZNF281/ZFP281, leading to recruitment of the NuRD complex and subsequent repression of expression. When overexpressed, promotes cells to enter into S phase and proliferation ().
Research Articles on Nanog	**1.** Loss of phosphorylation enhances NANOG activity in reprogramming. Mutation S65A alone has the most significant impact on increasing NANOG reprogramming capacity.
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.
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