



Recombinant Human Homeobox protein NANOG (NANOG)

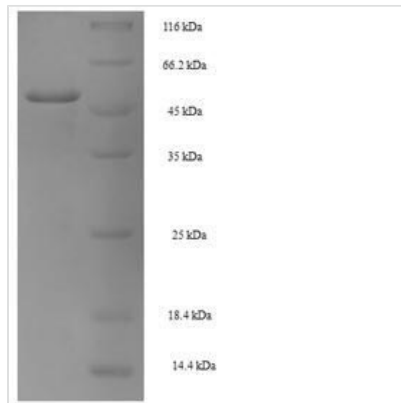
Product Code	CSB-EP888008HU
Relevance	Transcription regulator involved in inner cell mass and embryonic stem (ES) cells proliferation and self-renewal. Imposes pluripotency on ES cells and prevents their differentiation towards extraembryonic endoderm and trophoctoderm lineages. Blocks bone morphogenetic 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'. 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.
Abbreviation	Recombinant Human NANOG protein
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	Q9H9S0
Alias	Homeobox transcription factor Nanog Short name: hNanog
Product Type	Recombinant Protein
Immunogen Species	Homo sapiens (Human)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	MSVDPACPQSLPCFEASDCKESSMPVICGPEENYPQLQMSSAEMPHTETVS PLPSSMDLLIQDSPDSSTSPKGKQPTSAEKSVAKKEDKVPVKKQKTRTVFSST QLCVLNDRFQRQKYLSQLQMQELSNILNLSYKQVKTWFQNRMRKSKRWQKN NWPKNNSNGVTQKASAPTYPSLYSSYHQGCLVNPTGNLPMWSNQTWNNSTW SNQTQNIQSWNSHWNQTWCTQSWNNQAWNSPFYNCGEESLQSCMQFQ PNSPASDLEAALEAAGEGLNVIQQTTRYFSTPQTMDLFLNYSMNMQPEDV
Research Area	Epigenetics and Nuclear Signaling
Source	E.coli
Target Names	NANOG
Expression Region	1-305aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 6xHis-SUMO-tagged



Mol. Weight 50.6kDa

Protein Length Full Length

Image



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

Description

Expressing the recombinant Human NANOG protein in e.coli cells involves inserting a DNA fragment encoding the Human NANOG protein (1-305aa) into a plasmid vector and transferring it to the e.coli cells. Positive cells are screened, cultured, and induced to express the NANOG protein. The protein carries a N-terminal 6xHis-SUMO tag. The cells are lysed to collect the recombinant Human NANOG protein, which is purified through affinity purification and then identified using SDS-PAGE and subsequent staining of the gel with Coomassie Brilliant Blue. The purity of the resulting recombinant Human NANOG protein exceeds 90%.

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

Shelf Life

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