

## Product datasheet

# Recombinant human Nanog protein ab134886

### 1 References

#### Description

<b>Product name</b>	Recombinant human Nanog protein	
<b>Biological activity</b>	DNA binding activity was demonstrated with ELISA using NANOG specific DNA binding oligo.	
<b>Purity</b>	<p>&gt; 90 % SDS-PAGE.</p> <p>ab134886 was expressed in E. coli as inclusion bodies, refolded using “temperature shift inclusion body refolding” technology, chromatographically purified and sterile-filtered.</p>	
<b>Expression system</b>	Escherichia coli	
<b>Accession</b>	<a href="#">Q9H9S0</a>	
<b>Protein length</b>	Full length protein	
<b>Animal free</b>	No	
<b>Nature</b>	Recombinant	
<b>Species</b>	Human	
<b>Sequence</b>	<p>GSVDPACPQSLPCFEASDCKESSPMPVICGPEENYP            SLQMSSAEMPHTET            VSPLPSSMDLLIQDSPDSSTSPKGGKQPTSAEKSVAKKED            KVPVKKQKTRT            VFSSTQLCVLNDRFQRQKYLSQLQMQELSNLNLSYKQVK            TWFQNQRMK            KRWQKNNWPKNSNGVTQKASAPTYP            SLYSSYHQGCLVNPTGNLPMWSNQT            WNNSTWSNQTQNIQSWSNH            SWNTQTWCTQSWNNQAWN            SPFYNCGEESLQS            CMQFQPNSPASDLEAALEAAGEGLNVIQQTTRYFSTPQT            MDLFLNYSMMNM QPEDVESGGGGSPGRRRRRRRRRRRR</p>	
<b>Predicted molecular weight</b>	37 kDa including tags	
<b>Amino acids</b>	2 to 305	

#### Specifications

Our [Abpromise guarantee](#) covers the use of **ab134886** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

<b>Applications</b>	Functional Studies
	SDS-PAGE

**Form** Liquid

## Preparation and Storage

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**Stability and Storage** Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.  
pH: 8.00  
Constituents: Potassium chloride, 0.05% DTT, 0.32% Tris HCl, 0.02% EDTA, Glycerol, Sodium chloride, 3.4% DL-Arginine  
This product is an active protein and may elicit a biological response in vivo, handle with caution.

## General Info

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**Function** 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 (By similarity). Acts as a transcriptional activator or repressor (By similarity). Binds optimally to the DNA consensus sequence 5'-TAAT[GT][GT]-3' or 5'-[CG][GA][CG]C[GC]ATTAN[GC]-3' (By similarity). When overexpressed, promotes cells to enter into S phase and proliferation.

**Tissue specificity** Expressed in testicular carcinoma and derived germ cell tumors (at protein level). Expressed in fetal gonads, ovary and testis. Also expressed in ovary teratocarcinoma cell line and testicular embryonic carcinoma. Not expressed in many somatic organs and oocytes.

**Sequence similarities** Belongs to the Nanog homeobox family.  
Contains 1 homeobox DNA-binding domain.

**Developmental stage** Expressed in embryonic stem (ES) and carcinoma (EC) cells. Expressed in inner cell mass (ICM) of the blastocyst and gonocytes between 14 and 19 weeks of gestation (at protein level). Not expressed in oocytes, unfertilized oocytes, 2-16 cell embryos and early morula (at protein level). Expressed in embryonic stem cells (ES). Expression decreases with ES differentiation.

**Cellular localization** Nucleus.

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**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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