**Product datasheet**

**Recombinant Human Nanog protein ab50053**

1 References  
1 Image

**Overview**

<table>
<thead>
<tr>
<th>Product name</th>
<th>Recombinant Human Nanog protein</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protein length</td>
<td>Full length protein</td>
</tr>
</tbody>
</table>

**Description**

<table>
<thead>
<tr>
<th>Nature</th>
<th>Recombinant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source</td>
<td>Escherichia coli</td>
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</tbody>
</table>

**Amino Acid Sequence**

<table>
<thead>
<tr>
<th>Species</th>
<th>Human</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sequence</td>
<td>SVDPACPQSL PCFEASDCKE SSPMPVICGP</td>
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<td>EENYPSLQMS SAEMPHTETV SPLPSSMDLL</td>
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<tr>
<td></td>
<td>IQDSPDSSTS PKGQOPTSAE NSVAKKEDKV</td>
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<td>PVKQKTRTV FSSTQLCVLN DRFQRQKYL</td>
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<td>LQQMQLSNI LNLSYQVK WFOQQRMKSK</td>
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<td>RWQKNWPKN SNGVTQKASA PTYPSLYSSY</td>
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<td>HQGCLVNPNTG NLPMSNQTW NNSTVSNQ</td>
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<td>NIQWSNHW NTQWCTQSW NNQAWNSPFY</td>
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<td>NGEECLQSC MQFQPNPSAS DLEAALEAAG</td>
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<td></td>
<td>EGLNQIQTFT RYFSTPQTM LFLNYSMNMQ</td>
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<tr>
<td>Molecular weight</td>
<td>35 kDa</td>
</tr>
<tr>
<td>Amino acids</td>
<td>1 to 304</td>
</tr>
</tbody>
</table>

**Specifications**

Our [Abpromise guarantee](#) covers the use of ab50053 in the following tested applications.  
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

**Applications**

- SDS-PAGE

**Endotoxin level**

- < 0.100 Eu/µg

**Purity**

- > 95% SDS-PAGE.

**Form**

- Lyophilised

**Additional notes**

- Endotoxin level is less than 0.1 ng per µg (1EU/µg).
Preparation and Storage

Stability and Storage
Shipped at 4°C. The lyophilized protein is stable for a few weeks at room temperature. Store at -20°C long term.
Preservative: None
Endotoxin level is less than 0.1 ng per µg (1EU/µg).

Reconstitution
Reconstitute to 1mg/ml using 10mM Acetic acid.

General Info

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 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 transcription 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][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.

Images

Standard Curve for Nanog (Analyte: Nanog protein (ab50053)); dilution range 1 pg/ml to 1 ug/ml using Capture Antibody Mouse monoclonal [1E6C4] to Nanog (ab76586) at 0.2 ug/ml and Detector Antibody Rabbit polyclonal to Nanog - ChIP Grade (ab21624) at 0.5 ug/ml.

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- We provide support in Chinese, English, French, German, Japanese and Spanish
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