

Nanog-TAT, human recombinant protein
Homeobox transcription factor Nanog
Catalog # PBV10807r**Specification****Nanog-TAT, human recombinant protein - Product info**

Primary Accession [O9H9S0](#)
Calculated MW **36.2 kDa KDa**

Nanog-TAT, human recombinant protein - Additional Info

Gene ID **79923**

Other Names

Homeobox transcription factor Nanog

Gene Source

Human

Source

E. Coli

Assay&Purity

SDS-PAGE; ≥98%

Assay2&Purity2

HPLC;

Recombinant

Yes

Sequence

**MSVDPACPQS LPCFEASDCK ESSPMPVICG
PEENYPQLQM SSAEMPHET VSPLPSSMDL
LIQDSPDSST SPKGGKQPTSA ENSVAKKEDK
VPVKKQKTRT VFSSTQLCVL NDRFQRQKYL
SLQQMQELSN ILNLSYKQVK TWFQNQRMKS
KRWQKNNWPK NSNGVTQKAS APTYPSLYSS
YHQGCLVNPT GNLPMTWSNQT
WNNSTWSNQT QNIQSWSNHS
WNTQTWCTQS WNNQAWNPF
YNCGEESLQS CMQFQPNSPA SDLEAALEAA
GEGLNVIQQT TRYFSTPQTM DLFLNYSMMN
QPEDVGGYGR KKRRQRRR**

Target/Specificity

Nanog

Application Notes

Centrifuge the vial prior to opening. Reconstitute in water to a concentration of 0.1-1.0 mg/ml. Do not vortex. This solution can be stored at 2-8°C for up to 1 week. For extended storage, it is recommended to further dilute in a buffer containing a carrier protein (example 0.1% BSA) and store in working aliquots at -20°C to -80°C.

Format

Lyophilized powder

Storage

-20°C; Sterile filtered through a 0.2 micron filter. Lyophilized from 5 mM Sodium Citrate pH 3.0 and 100 mM NaCl.

Nanog-TAT, human recombinant protein - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Nanog-TAT, human recombinant protein - Images

Nanog-TAT, human recombinant protein - Background

Nanog is a regulatory protein that is associated with undifferentiated pluripotent cells. The expression of Nanog, which is suppressed in all adult tissues, is restricted to embryonic stem cells and to certain pluripotent cancer cells. Decreased expression of Nanog is strongly correlated with cell differentiation. Nanog, most likely, acts as an intracellular regulator, which helps maintain pluripotency and self-renewal via a STAT3 independent pathway. The introduction of Nanog, along with Sox2, Oct4, Lin28, into primary human fibroblasts was sufficient to confer a pluripotent state upon the fibroblast genome. The reprogrammed cells thus obtained resemble ESC in morphology and gene expression. Protein transduction using TAT fusion proteins represents an alternative methodology for introducing transcription factors into primary as well as transformed cells. Recombinant human Nanog-TAT is a 36.2 kDa protein, which is synthesized as a 304 amino acid polypeptide plus a 13- residue C-terminal TAT peptide.

Nanog-TAT, human recombinant protein - References

Mitsui K., et al. Cell 113:631-642(2003).
Clark A.T., et al. Stem Cells 22:169-179(2004).
Kim J.S., et al. Exp. Mol. Med. 37:601-607(2005).
Ota T., et al. Nat. Genet. 36:40-45(2004).
Mural R.J., et al. Submitted (SEP-2005) to the EMBL/GenBank/DDBJ databases.