

DATASHEET

Version 20181206

NANOG-TAT, Human

Cat. No.: Z03001-20

Size: 20.0 ug

Synonyms: None

Description:

NANOG is a transcription factor involved with self-renewal of inner cell mass and embryonic stem (ES) cells by functioning in concert with other factors such as POU5F1 (Oct-4) and SOX2. Nanog imposes pluripotency on ES cells and prevents their differentiation towards extraembryonic endoderm and trophoctoderm lineages, and 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.

Recombinant human NANOG-TAT (rhNANOG-TAT) produced in *E. coli* is a single chain, 318 amino acids non-glycosylated polypeptide. A fully biologically active molecule, rhNANOG-TAT has a molecular mass of 36.2kDa analyzed by reducing SDS-PAGE and is obtained by proprietary chromatographic techniques at GenScript.

Amino Acid Sequence:

```
00001 MSVDPACQQS LPCFEASDCK ESSPMPVICG PEENYPQLQM
00041 SSAEMPHTET VSPLPSSMDL LIQDSPDSST SPKGKQPTSA
00081 ENSVAKKEDK VPVKKQKTRT VFSSTQLCVL NDRFQRQKYL
00121 SLQQMQELSN ILNLSYKQVK TWFNQRMKS KRWQKNNWPK
00161 NSNGVTQKAS APTYPSLYSS YHGGCLVNPT GNLPWWSNQT
00201 WNNSTWSNQT QNIQSWSNHS WNTQTWCTQS WNNQAWNPF
00241 YNCGEESLQS CMQFQPNSPA SDLEAALEAA GEGLNVIQQT
00281 TRYFSTPQTM DLFLNYSMMN QPEDVGGYGR KRRRQRRR
```

Source: *E. coli*

Species: Human

Molecular Weight: 36.2 kDa, analyzed by reducing SDS-PAGE.

Formulation: Sterile Filtered solution contains 10mM PB, 300mM NaCl, pH7.4.

Purity: > 95% by SDS-PAGE and HPLC analyses.

Endotoxin Level: < 0.2 EU/μg, determined by LAL method.

Storage: Recombinant human NANOG-TAT (rhNANOG-TAT) remains stable up to 1-2 weeks at 4°C from date of receipt. For long term storage, aliquot and store at lower than -70°C. Avoid repeated freezing and thawing cycles.