

# PRODUCT DATA SHEET



Bioworld Technology, Inc.

## Recombinant NANOG-TAT, Human

Catalog Number: BK0142-100µg

Source: Escherichia coli.

Quantity: 100µg

### 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 trophoblast 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.

### Molecular Weight:

36.2 kDa, analyzed by reducing SDS-PAGE.

### Purity:

> 95% by SDS-PAGE and HPLC analyses.

### Biological Activity:

### Physical Appearance:

Sterile Filtered White lyophilized (freeze-dried) powder.

### Formulation:

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

### AA Sequence:

MSVDPACPQSLPCFEASDCKESS-  
PMPVICGPEENYPSLQMS-  
SAEMPHETVSPSPSSMDLLIQD-  
SPDSSTSPKGGKQPTSAENSVAKKEDKVPVKKQK  
TRTVFSSTQLCVLNDRFQRQKYLSQLQMQELS-  
NILNLSYKQVKTWFQNRQRMKSKRWQKNNWP-  
KNSNGVTQKASAPTYPSLYSSYHQGCLVNPTGN-  
SYHQGCLVNPTGN-  
LPMWSNQTWNNSTWSNQTQNIQSWNSHNSW-  
TQTWCTQSWNNQAWNSPFYNCGEESLQSCMQF-  
QPNSPASDLEAALEAAGEGLNVIQQTTRYF-  
STPQTMDLFLNYSMNMQPEDVGGYGRK-  
KRRQRRR

### Endotoxin:

< 0.2 EU/µg, determined by LAL method.

### Reconstitution:

Reconstituted in ddH<sub>2</sub>O or PBS at 100 µg/ml.

### 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 -20 °C or -80 °C. Avoid repeated freezing and thawing cycles.

### Usage:

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