

Recombinant Human Fibronectin (FN) Protein

Size / Cat.No.: 50 μ g / GMP-TL903-0050

250 μ g / GMP-TL903-0250

Product Name

Generic Name Recombinant Human Fibronectin (FN) Protein

Synonym Cold-insoluble globulin

Product Information

Protein sequence A DNA sequence encoding the human Fibronectin (P02751) was expressed with a His-tag at the N-terminus.

Expression Host E.coli

QC Testing Purity > 90 % as determined by SDS-PAGE

Activity Measured by its ability to support hiPS cell adhesion. The ED50 for this effect is $\leq 3.2 \mu\text{g/mL}$.

Endotoxin < 0.1EU per 1 μg of the protein as determined by the LAL method.

Molecular Mass The Recombinant Human Fibronectin Protein predicts a molecular mass of 64.7 kD.

Formulation Supplied as a 0.22 μm filtered solution in PBS, PH 7.4.

Stability & Storage Lyophilized preparation can be stored 24 months at -20°C.
6 months at -20°C under sterile conditions after reconstitution.
12 months at -80°C under sterile conditions after reconstitution.
Recommend to aliquot the protein into smaller quantities after reconstituting with water for injection, normal saline or PBS, and keep the diluted concentration above 100 $\mu\text{g/mL}$. Avoid repeated freeze-thaw cycles.

Background

Recombinant Human Fibronectin (FN) Protein, including three functional regions (cell binding domain, heparin binding domain, and CS1 site), can significantly enhance retrovirus mediated gene transfer to mammalian cells. This effect may be due to colocalization of retroviral particles and target cells on rhFN CH-296 chimeric molecule via retroviral particles or heparin binding region II binding to cell adhesion sites VLA-4 and/or VLA-5. According to the research results of Hannenberg *et al.*, there is typically 50% to 75% gene transduction of cells with the coating method.

References

1. Williams CM, Engler AJ, Slone RD, Galante LL, Schwarzbauer JE (2008) Fibronectin expression modulates mammary epithelial cell proliferation during acinar differentiation. *Cancer Research* 68 (9): 3185–3192.
2. Mao Y, Schwarzbauer JE (2005) Fibronectin fibrillogenesis, a cell-mediated matrix assembly process. *Matrix Biology : Journal of the International Society for Matrix Biology* 24 (6): 389–399.
3. Erickson HP (2002) Stretching fibronectin. *Journal of Muscle Research and Cell Motility* 23 (5-6): 575–580.

Product Use

For research and manufacturing use