

Recombinant Human Vitronectin Protein

Size / Cat.No.: 100µg / GMP-TL651-0100

Product Name

Generic Name	Recombinant Human Vitronectin Protein
Synonym	V75, Vitronectin, VN, VTN, S-protein, Serum-spreading factor

Product Information

Protein sequence	A DNA sequence encoding the human Vitronectin (NP_000629.3) was expressed with a polyhistidine tag at the C-terminus.
Expression Host	HEK293 Cells
QC Testing Purity	> 90 % as determined by SDS-PAGE
Activity	Vitronectin promotes attachment of hESCs and iPSCs with 5 µg/mL under the condition of serum-free feeding .
Endotoxin	< 0.1EU per µg of the protein as determined by the LAL method.
Molecular Mass	The Recombinant Human Vitronectin consists of 465 amino acids and predicts a molecular mass of 53 KDa.
Formulation	Lyophilized from sterile PBS, pH 7.4. Normally 6% mannitol are added as protectants before lyophilization.
Stability & Storage	Samples are stable for up to 24 months from date of receipt at 4 °C. Recommend to aliquot the protein into smaller quantities for optimal storage. Avoid repeated freeze-thaw cycles.
Usage method	<ol style="list-style-type: none"> 1. Reconstitute each 20mg of vitronectin with 1mL of sterilized water, mix well and stand for 25~30 minutes until dissolving. Then mix well, aliquot and freeze. 2. Dilute vitronectin with sterile phosphate buffer (PBS) to obtain the desired concentration and dissolve vitronectin by gentle pipetting. Note: Do not vortex vigorously; Different concentrations of dilutions need to be tested to determine the optimal concentration for each culture system. Recommended coating concentration range is 5~50 µg/mL. 3. Taking 6-well-plate as an example, add 1mL of diluted vitronectin solution to each well, and leave the plate at room temperature for 1~2 hours. 4. After the plate is completely coated, aspirate PBS and discard it, and gently wash the plate with sterile PBS.

Background

Recombinant human vitronectin protein efficiently binds to extracellular matrices and is primarily used to promote cell adhesion by coating plates or flasks. In the matrix, vitronectin can support cell adhesion by binding to various integrins and other proteoglycans. In addition, vitronectin can function as a chemically defined matrix component in human embryonic stem cell regeneration media.

References

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3. Improving single-cell cloning workflow for gene editing in human pluripotent stem cells. Chen YH, Pruett-Miller SM. *Stem Cell Res*. 2018 Aug;31:186-192. doi: 10.1016/j.scr.2018.08.003. Epub 2018 Aug .
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Product Use

For research and manufacturing use