

Product Information

Fibronectin, human recombinant, expressed in HEK 293 cells suitable for cell culture

Catalog Number **ECM001**
Storage Temperature $-20\text{ }^{\circ}\text{C}$

Synonyms: FN, Cold-Insoluble Globulin (CIG)

Product Description

Fibronectin (FN) is a multifunctional glycoprotein, the gene of which is localized to human chromosome 2q34-36.¹ FN exists as two major isoforms, one soluble and one insoluble form.¹ The former is present in plasma, whereas the insoluble form resides in tissues and extracellular matrix (ECM) of cartilage.¹ This product is a recombinant form of the plasma FN (uniprot number P02751). It contains no tags and is identical in sequence to the native plasma FN. Plasma FN is a major protein component of blood plasma (300 $\mu\text{g/ml}$) and is produced in the liver by hepatocytes.²

Recombinant human fibronectin is expressed in HEK 293 cells as a glycoprotein with a calculated molecular mass of 259.5 kDa. This protein is produced in human cells using an all-human production system, without the use of serum. The human cells expression system allows human-like glycosylation and folding, and often supports better stability of the protein in culture.

This product is supplied as a powder, lyophilized from CAPS buffered saline. It is aseptically filled.

The biological activity of recombinant human fibronectin was tested in culture by measuring the ability of immobilized fibronectin to support adhesion of CHO cells.

Uniprot: P02751

Purity: $\geq 95\%$ (SDS-PAGE)

Endotoxin level: ≤ 1.0 EU/ μg FN (LAL)

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

Preparation Instructions

Briefly centrifuge the vial before opening. Reconstitute in water to a concentration of 0.1–1 mg/mL. Do not vortex.

This solution can be stored at $2\text{--}8\text{ }^{\circ}\text{C}$ for up to 1 week. For extended storage, it is recommended to store in working aliquots at $-20\text{ }^{\circ}\text{C}$.

Storage/Stability

Store the lyophilized product at $-20\text{ }^{\circ}\text{C}$. The product is stable for at least 2 years as supplied.

After reconstitution, it is recommended to store the protein in working aliquots at $-20\text{ }^{\circ}\text{C}$.

References

1. Yang, H.Y. et al., An intron polymorphism of the fibronectin gene is associated with end-stage knee osteoarthritis in a Han Chinese population: two independent case-control studies. *BMC Musculoskelet. Disord.*, **15**, 173 (2014).
2. Pankov, R., and Yamada, K.M., Fibronectin at a glance. *J. Cell Sci.*, **115** (Pt 20), 3861–3 (2002).

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