

Fibronectin Bovine

Description: Plasma fibronectin level is elevated in severe coronary artery disease. Increased plasma fibronectin levels are related with venous thromboembolism (VTE) particularly in males, and extend the probable association between biomarkers and risk factors for arterial atherothrombosis and VTE. Fibronectin plays a role in several cellular processes, including tissue repair, embryogenesis, blood clotting, and cell migration/adhesion. Fibronectin consists in two main forms: 1) as an insoluble glycoprotein dimer that serves as a linker in the extracellular matrix and 2) as a soluble disulphide linked dimer found in the plasma. The plasma form is produced by hepatocytes, and the ECM form is synthesized by fibroblasts, chondrocytes, endothelial cells, macrophages, as well as certain epithelial cells. Fibronectin also takes part as a general cell adhesion molecule by anchoring cells to collagen or proteoglycan substrates. Fibronectin organizes cellular interaction with the ECM by binding to different components of the extracellular matrix and to membrane-bound Fibronectin receptors on cell surfaces. Molecular Weight 220kDa.

Source: Bovine Plasma.

Physical Appearance: Sterile Filtered White lyophilized (freeze-dried) powder.

Purity: Greater than 95.0% as determined by SDS-PAGE.

Formulation:

The Bovine Fibronectin was lyophilized from a concentrated 1mg/ml solution containing 0.05M Tris Cl pH-7.5 and 0.1M NaCl.

Stability:

Lyophilized bovine Fibronectin although stable at room temperature for 1 week, should be stored desiccated below -18°C. Upon reconstitution Fibronectin should be stored at 4°C between 2-7 days and for future use below -18°C. Please prevent freeze-thaw cycles.

Usage:

NeoBiolab's products are furnished for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.

Applications:

Fibronectin is useful for the induction of cell attachment to a variety of surfaces including plastic and glass tissue culture labware, petri dishes, coverslips, microcarrier beads, etc. Fibronectin is useful for growth and maintenance of cells in low serum conditions. In general, the reconstituted fibronectin should be diluted with sterile physiological saline or serum-free medium to a concentration of 10-50µg/ml. The plates are treated with the solution, at room temperature 1-2 hours, the supernatant removed and the plates rinsed with fresh media or buffer. Growth media is then added and the coated plates seeded with a suspension of freshly harvested cells. Care should be taken to inactivate serum proteases used in the preparation of the cells, since fibronectin is very sensitive to proteolysis. Optimum concentration of fibronectin depends on the types of cell and the particular surface used. Generally, use 1-5µg/cm

Solubility:

Purified bovine fibronectin has a tendency to form insoluble aggregates upon reconstitution. We suggest to reconstitute the 1mg Fibronectin with a chaotropic agent such as urea at room temperature at a concentration of 0.2mg/ml using sterile water. Let stand 1-2 hours.

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