

DESCRIPTION

Source Bovine plasma-derived Fibronectin protein

SPECIFICATIONS

Activity Measured by its ability to support cell attachment and spreading when used as a substratum for cell culture. In this application, the recommended concentration for this effect is 1-5 µg/cm². Fibronectin can also be added in the media to support cell spreading at a concentration of 0.5-50 µg/mL. **Optimal concentration depends on cell type as well as the application or research objectives.**

Measured by the ability of the immobilized protein to support the adhesion of B16-F1 mouse melanoma cells. The ED₅₀ for this effect is 10.0-100 ng/mL.

Endotoxin Level <1.0 EU per 1 µg of the protein by the LAL method.

Purity >90%, by SDS-PAGE under reducing conditions and visualized by silver stain.

Formulation Supplied as a 0.2 µm filtered solution in Tris-HCl, NaCl and Urea. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Shipping The product is shipped with dry ice or equivalent. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 6 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after opening.

Thaw frozen material overnight at 2-8 °C. Do not disturb the product during the initial thaw event. Avoid vortexing and excessive agitation of the product.

BACKGROUND

Fibronectin is an extracellular matrix (ECM) component and is one of the primary cell adhesion molecules (1). It is composed of multiple homologous repeats and contains many functional domains. The occurrence of different isoforms is due to alternative mRNA splicing of the ED-A, ED-B and III-CS regions and subsequent post-translational modification. Although non-reactive with adhesion receptors in its soluble state, Fibronectin is highly adhesive when on the surface (2). Polymerization of Fibronectin into ECM must be tightly regulated to ensure appropriate adhesive properties upon ECM formation. Because of its ability to interact with many ligands (e.g. cells, heparin, fibrin, collagen, DNA, immunoglobulin), Fibronectin plays an important role in normal morphogenesis, including cell adhesion, migration, differentiation, and specific gene expression (3 - 6).

References:

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