Vitronectin, Human

FOR, CELL CULTURE, CELL ADHESION
AND CELL BIOLOGY
Catalog Number **5051**

DESCRIPTION

Vitronectin is a glycoprotein present in plasma and tissues. When circulating in the blood, Vitronectin is found as a mixture of 75 kD and 65 kD polypeptides. Vitronectin is used to promote cell attachment, adhesion, spreading, proliferation, migration and differentiation in a variety of normal and neoplastic cells. In addition to its cell spreading function, Vitronectin binds to heparin and collagen.

Advanced BioMatrix's human Vitronectin is provided at a concentration of 0.5 mg/ml with 0.1 mg of Vitronectin being dissolved in 0.2 ml of 0.15M NaCl, 0.005M HEPES buffer at approximately pH 7.4. Vitronectin is purified from human plasma by the method of Hayman et al [(1)] using an anti-Vitronectin monoclonal antibody affinity column and sterilized by 0.2µ filtration.

APPLICATIONS

Vitronectin is used as a thin coating. The optimal concentration for cell attachment and culture may differ for various cell types. Some experimentation may be required to determine the optimal conditions for individual cell culture systems. *Vitronectin is not for human use as supplied.*

CHARACTERIZATION

Source: Human plasma

Purity: Vitronectin has a purity of >95% based on Coomassie brilliant blue stain of 7.5% SDS-PAGE. Fibronectin contamination is less than 0.04% based on immunoblotting.

Concentration: The concentration of Vitronectin is 0.5 mg/ml with 0.1 mg of Vitronectin being dissolved in 0.2 ml of buffer at approximately pH 7.4.

(1) Hyaman E.G., M.D. Pierschbacher, Y. ohgren, and E. Ruoslahti (1983) Serm spreading facor (Vitronectin) is present at the cell surface and in tissues. Proc. Natl. Acad. Scie. U.S.A. 80 (13): 4003-4007

Cell Attachment Activity: 24 well plates were coated with Vitronectin in PBS (0.3 ml/well) at 37°C overnight. After blocking by BSA, TIG-3 cells (JCRB 0506) (5 X 10^4) cells/ 1 ml DMEM/well) were added and incubated at 37°C for 90 minutes. Attached cells were counted with a Coulter counter.

pH: Vitronectin is dissolved in buffer with the pH being approximately 7.4.

Storage: It is recommended that Vitronectin be stored below -20°C and repeat thawing and freezing be avoided.

INSTRUCTIONS FOR USE:

Use these recommendations as guidelines to determine the optimal coating conditions for your culture system.

1. Thaw Vitronectin and dilute to desired concentration using serum-free medium or PBS. The final solution should be sufficiently dilute so that the volume added covers the surface evenly.
2. Add appropriate amount of diluted material to culture surface.
3. Incubate at room temperature for 1-2 hours.
4. Aspirate remaining material.
5. Rinse plates carefully with dH_2O– avoid scratching bottom surface of plates.
6. Plates are ready for use. They may also be stored at 2-8°C damp or air dried if sterility is maintained.

PRECAUTIONS

The human-source raw material used in the production of this product tested negative for hepatitis B virus, hepatitis C virus (HCV), human immunodeficiency virus type-1 (HIV-1) and type-2 (HIV-2) and Treponema pallidum. Handle as if potentially infectious.