

Certificate of Analysis

HUMAN VITRONECTIN

Vitronectin is a monomeric glycoprotein used to promote cell attachment, spreading, proliferation, migration, and differentiation in a variety of normal and neoplastic cells. These include mouse and human fibroblasts, human carcinoma of the cervix and breast, and rat glioma.¹ Vitronectin and fibronectin are the two major adhesive glycoproteins found in plasma and serum. When circulating in the blood, vitronectin is found as a mixture of 75 kD and 65 kD polypeptides, the latter most likely being the result of endogenous proteolysis of the 75 kD polypeptide.¹⁻³ In addition to its cell spreading function, vitronectin binds to heparin and collagen, modulates Thrombin-Anti-Thrombin III activity,^{2,3} and mediates the cytotoxicity of the membrane attack complex C5b-9.² Vitronectin is also known as S-Protein, serum spreading factor and epibolin. It is used as a thin coating on tissue culture plastic.

CATALOG NUMBER:	354238	LOT NUMBER: _____
SOURCE:	Human plasma	
NOTE:	Any of the human source material used in the manufacturing of this material was tested and found nonreactive for hepatitis B surface antigen (HBsAG), for antibody to hepatitis C virus (anti-HCV), for antibody to human immunodeficiency virus-1 (anti-HIV-1) and for antibody to human immunodeficiency virus-2 (anti-HIV-2). Regardless of the test data this product should be handled observing the same Universal Safety Precautions employed when handling any potentially infectious material.	
QUANTITY:	250 micrograms, lyophilized.	
MOLECULAR WEIGHT:	Characteristic 75 kD and 65 kD components.	
FORMULATION:	Dialyzed against 10.0 mM phosphate buffer prior to lyophilization.	
RECONSTITUTION AND USE:	<p>Equilibrate vial to room temperature. Reconstitute with dH₂O or other aqueous buffered solution at neutral pH. Swirl gently to dissolve. If entire amount of material is not to be used immediately, transfer aliquots to sterile plastic tubes and store at -20°C. It is recommended that solubilized product is used within 1 month. DO NOT STORE IN FROST-FREE FREEZER. AVOID REPEATED FREEZE THAWS.</p> <p>Human 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. See reverse for coating procedures.</p>	
QUALITY CONTROL:	Human Vitronectin is tested for biological activity in a cell adhesion assay using HT-1080 human fibrosarcoma cells. Pre-treatment of 24 well tissue culture surfaces with concentrations as low as 50 ng/cm ² promoted cell attachment and spreading.	

>95% by SDS-PAGE.

Tested and found negative for the presence of bacteria, fungi and mycoplasma.

STORAGE: Stable when stored at 2-8°C. **DO NOT FREEZE.**

EXPIRATION DATE:

REFERENCES:

1. J. Silnutzer, et.al. Methods for Prep. Of Media, Supplements, and Substrata for Serum Free Animal Cell Culture, p. 245-268, Alan R. Liss, Inc. (1984).
2. Yatohgo, T., et.al., Cell Structure and Function, **13**:281 (1984).
3. Ill and Ruoslahti, J. Biol. Chem. **260 # 29**:15610 (1985).

Coating procedure

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

- 1) Dilute material to desired concentration using serum-free medium or phosphate buffered saline. The final solution should be sufficiently dilute so that the volume added covers the surface evenly.

Example: If the final coating concentration is 50 ng/cm², dilute the material to 0.5 ug/ml and add 1 ml/35 mm dish, 3 ml/60 mm dish, etc.

- 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 – 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.

Quality Assurance

Date