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ProductInformation

Product Number	Description	Source	Storage	Target Cells For Attachment	Concentration For Use	Refs.
F 0895	FIBRONECTIN 0.1% Solution	human plasma	2-8EC	epithelial cells, mesenchymal cells, neuronal cells, fibroblasts, neural crest cells, endothelial cells	1-5 µg/cm^2	1,3,7,8, 10,11
F 1141		bovine plasma				
F 3542	FIBRONECTIN Fragment III$_1$-C	recombinant	!20EC		0.45 µg/ml with 0.5 g/ml fibronectin	
F 4759	FIBRONECTIN Lyophilized	bovine plasma	!0EC		1-5 µg/cm^2	
F 2006		human plasma				
F 0635		rat plasma				
F 2518	FIBRONECTIN CELLULAR Lyophilized	human foreskin				
F 6277	FIBRONECTIN CELLULAR Aseptically processed Lyophilized					
F 5022	FIBRONECTIN-LIKE ENGINEERED PROTEIN POLYMER	recombinant	Room Temp.		2-10 µg/cm^2	20,21, 22,23

This table is extracted from the Tissue Culture Technical Information Section of the Sigma Catalog. Please refer to the catalog for the complete table of extracellular matrices/attachment factors and references.

PRODUCT USE

FIBRONECTIN (Product Nos. F 1141*, F 0895*, F 4759, F 2006, F 0635)
Optimal conditions for attachment must be determined for each cell line and application.

1) Reconstitute with 1 ml sterile H_2O/mg of protein. **Allow to dissolve for 30 minutes at 37EC.** A small amount of undissolved material may remain. This will not affect product performance. Solutions should **NOT** be vortexed or agitated as protein denaturation may occur.
2) Dilute fibronectin in sterile balanced salt solution and coat the culture surface with a minimal volume. Dilutions to 0.01% can be prepared.
3) Allow to air dry for at least 45 minutes at room temperature. Excess fibronectin may be removed by aspiration, but is not necessary.
*Note: Step 1 is not necessary for the Fibronectin Solutions, Product Nos. F 1141 and F 0895.
4) Repeated freezing and thawing of reconstituted fibronectin is not recommended as breakdown of protein will occur. Reconsitituted solutions can be stored in working aliquots at -20ºC in sterile plastic vials.

CELLULAR FIBRONECTIN (Product Nos. F 2518, F 6277)
Optimal conditions for attachment must be determined for each cell line and application.

1) Reconstitute with 0.5 ml of sterile water. Do not agitate. Allow the solution to stand 30 minutes to solubilize. A small amount of undissolved material may remain. This will not affect product performance.
2) Dilute fibronectin in sterile balanced salt solution and coat the culture surface with a minimal volume.
3) Allow to air dry for at least 45 minutes at room temperature. Excess fibronectin may be removed by aspiration, but is not necessary.

FIBRONECTIN-LIKE ENGINEERED PROTEIN POLYMER (Product No. F 5022)
Optimal conditions for attachment must be determined for each cell line and application.

The diluent and the stock solution contain 4.5 M $LiClO_4$ which is near saturation at room temperature. During shipping (diluent) and storage (diluent and stock solution) it is likely that there will be some recrystallization in the vials. Warming will return the crystals into solution. Store tightly sealed at room temperature.
1) Reconstitute the lyophilized product to a 1 mg/ml stock solution by combining with the provided diluent. Swirl occasionally until dissolved.
2) Dilute to working concentration with a balanced salt solution in the range of 1:10 to 1:50, depending upon the cell line and application. The optimal range may be established by titer dilution.
3) Working concentration range is 2-10 µg/cm^2. If currently using fibronectin, use the polymer at the same concentration.

Some cell lines show equivalent performance using from 2 to 5 times less protein polymer than fibronectin.
4) Coat surfaces with 0.1 ml/cm^2 of the working solution for 5 minutes at room temperature.

5) Remove the coating solution and immediately rinse twice with a balanced salt solution or tissue culture medium. Coated substrates can be used immediately or stored for up to 4 months at room temperature.

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