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ProductInformation

Fibronectin Proteolytic Fragment, 45 kDa from human plasma

Product Number **F 0162**
Storage Temperature –20 °C

Product Description

Fibronectins are high molecular weight glycoproteins having two subunits with molecular weights in the range of 220-250 kDa. The subunits are joined by disulfide bonds to form the dimer. Fibronectin has an acidic isoelectric point (pI = 5.5-6.0).

Fibronectin fragments are obtained from plasma fibronectin by using proteolytic enzymes. These fragments are useful tools for mapping regions within the fibronection molecule, which are responsible for specific binding to collagen and for other biologically relevant functions. The N-terminal 70 kDa fragment (Product No. F 0287) is obtained by Cathepsin D digestion. This fragment binds to both gelatin and heparin. Tryptic digestion of this 70 kDa fragment yields two peptides: the N-terminal 30 kDa heparin binding fragment (Product No. F 9911) and a 45 kDa gelatin binding fragment (Product No. F 0162).

Fibronectin proteolytic fragment 45 kDa, the gelatin binding fragment, is adjacent to the N-terminal domain and appears contain the only gelatin binding site (one in each subunit). This fragment has an acidic pI (4.9-5.3) and does not bind to heparin. This domain is resistant to proteolysis due to intrachain disulfide bonding and the attached carbohydrate. The intrachain disulfide bonds are essential for binding to gelatin, while the complex, branched, asparagine-linked carbohydrate is not. This fragment binds to C1q, but not to fibrin.

The product is lyophilized from phosphate buffered saline with sucrose as a cryoprotectant.

Purity: minimum 90% (SDS-PAGE)

Precautions and Disclaimer

This product is for laboratory research use only. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Plasma from each donor has been tested and found negative for antibody to HIV, HCN, and HBsAg.

Preparation Instructions

The product is soluble in water (0.5 mg/ml), yielding a clear to slightly hazy solution.

Storage/Stability

It is recommended to store the product at –20 °C.

References

1. Hynes, R.O., Fibronectins. in Springer Series in Molecular Biology, Springer-Verlag Inc. (New York: 1990).
2. Pickford, A.R., et al., Structure, **5**, 359-370 (1997).

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