

# Mouse Vitronectin / VTN Protein (His Tag)

Catalog Number: 50585-M08H



**Sino Biological Inc.**

Biological Solution Specialist

## General Information

### Gene Name Synonym:

VTN

### Protein Construction:

A DNA sequence encoding the mouse vitronectin (NP\_035837.1) (Met 1-Lys 478) was expressed, with a polyhistidine tag at the C-terminus.

**Source:** Mouse

**Expression Host:** Human Cells

## QC Testing

**Purity:** > 94 % as determined by SDS-PAGE

### Bio-Activity

**Measured by the ability of the immobilized protein to support the adhesion of DU145 human prostate carcinoma cells.**  
**When cells are added to mouse Vitronectin coated plates (10 µg/mL and 100 µL/well), > 60% cells will adhere specifically after 30 minutes at 37 °C.**

### Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

### Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

**Predicted N terminal:** Asp 20

### Molecular Mass:

The secreted recombinant mouse vitronectin consists of 470 amino acids and has a predicted molecular mass of 54.2 kDa. In SDS-PAGE under reducing conditions, the apparent molecular mass of rmvitronectin is approximately 75-85 kDa due to glycosylation.

### Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose and mannitol are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

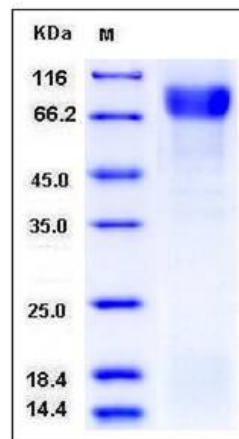
## Usage Guide

### Storage:

Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

**Avoid repeated freeze-thaw cycles.**

### SDS-PAGE:



### Reconstitution:

Detailed reconstitution instructions are sent along with the products.

## Protein Description

Vitronectin, also known as VTN, is a member of the pexin family. It is an abundant glycoprotein found in serum the extracellular matrix and promotes cell adhesion and spreading. Vitronectin is a secreted protein and exists in either a single chain form or a cleaved, two chain form held together by a disulfide bond. Vitronectin consists of three domains: the N-terminal Somatomedin B domain, a central domain with hemopexin homology, and a C-terminal domain also with hemopexin homology. The Somatomedin B domain is a close knit disulfide knot and binds to plasminogen activator inhibitor-1 (PAI-1) and stabilizes it. An RGD sequence which is a binding site for membrane bound integrins is also found in Vitronectin. As a component of platelets, Vitronectin serves to regulate proteolysis initiated by plasminogen activation, interacts with the urokinase receptor, and binds to several serpin serine protease inhibitors as well. Accordingly, Vitronectin is suggested to be involved in hemostasis, cell migration, as well as tumor malignancy.

### References

1. Jenne,D. et al., 1987, Biochemistry. 26 (21): 6735-6742.
2. Preissner, K.T. et al., 1998, Thromb. Res. 89 (1): 1-21.
3. Felding, H.B. et al.,1993, Curr. Opin. Cell Biol. 5 (5): 864-868.
4. Zhou,A. et al., 2003, Nat. Struct. Biol. 10 (7): 541-544.

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