

# Human VTN / Vitronectin Protein (His Tag)

Catalog Number: 10424-H08H



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## General Information

### Gene Name Synonym:

V75; Vitronectin; VN; VNT

### Protein Construction:

A DNA sequence encoding the human VTN (NP\_000629.3) (Met1-Leu478) was expressed with a polyhistidine tag at the C-terminus.

**Source:** Human

**Expression Host:** HEK293 Cells

## QC Testing

**Purity:** ≥95 % 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 Vitronectin-coated plates (10 µg/mL and 100 µL/well), approximately >40% cells will adhere specifically after 30 minutes at 37°C.**

### Endotoxin:

< 10 EU per mg protein.

**Predicted N terminal:** Asp 20

### Molecular Mass:

The recombinant human VTN consists of 470 amino acids and predicts a molecular mass of 53.7 kDa. As a result of glycosylation, it migrates as an approximately 68.1 kDa band in SDS-PAGE under reducing conditions.

### Formulation:

Lyophilized from sterile PBS, pH 7.4.

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 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

### Stability & Storage:

Samples are stable for twelve months from date of receipt at -20°C to -80°C.

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.**

### Reconstitution:

Detailed reconstitution instructions are sent along with the products.

## SDS-PAGE:



## 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 is a plasma glycoprotein implicated as a regulator of diverse physiological process, including blood coagulation, fibrinolysis, pericellular proteolysis, complement dependent immune responses, and cell attachment and spreading. Because of its ability to bind platelet glycoproteins and mediate platelet adhesion and aggregation at sites of vascular injury, vitronectin has become an important mediator in the pathogenesis of coronary atherosclerosis. As a multifunctional protein with a multiple binding domain, Vitronectin interacts with a variety of plasma and cell proteins. Vitronectin binds multiple ligands, including the soluble vitronectin receptor. It may be an independent predictor of adverse cardiovascular outcomes following acute stenting. Accordingly, Vitronectin is suggested to be involved in hemostasis, cell migration, as well as tumor malignancy.

## References

- 1.Ekmeki OB, et al. (2006) Vitronectin in atherosclerotic disease. Clin Chim Acta. 368(1-2): 77-83.
- 2.Derer W, et al. (2009) Vitronectin concentrations predict risk in patients undergoing coronary stenting. Circ Cardiovasc Interv. 2(1): 14-9.
- 3.Heyman L, et al. (2010) Mesothelial vitronectin stimulates migration of ovarian cancer cells. Cell Biol Int. 34(5): 493-502.