

VNN2 Protein, Human, Recombinant (His)

General Information

Synonyms:	vanin 2;FOAP-4;VNN2;GPI-80
Protein Construction:	A DNA sequence encoding the human VNN2 isoform 1 (NP_004656.2) without the propeptide (Met 1-Ser 492) was expressed, with a polyhistidine tag at the C-terminus. Predicted N terminal: Gln 23
Species:	Human
Expression Host:	HEK293 Cells
Accession:	O95498-1
Molecular Weight:	54.6 kDa (predicted); 55-60 kDa (reducing condition, due to glycosylation)

QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 98 % as determined by SDS-PAGE
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:	A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.
Stability & Storage:	It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.
Shipping:	In general, Lyophilized powders are shipping with blue ice.

Protein Background

Vascular non-inflammatory molecule 2, also known as glycosyl-phosphatidyl inositol-anchored protein GPI-8, Vanin-2, Protein FOAP-4 and VNN2, is a cell membrane protein that belongs to the CN hydrolase family and Vanin subfamily. VNN2 is widely expressed with higher expression in spleen and blood. VNN2 is a member of the vanin family of proteins which share extensive sequence similarity with each other, and also with biotinidase. The family

includes secreted and membrane-associated proteins, a few of which have been reported to participate in hematopoietic cell trafficking. No biotinidase activity has been demonstrated for any of the vanin proteins, however, they possess pantetheinase activity, which may play a role in oxidative-stress response. VNN2 is an amidohydrolase that hydrolyzes specifically one of the carboamide linkages in D-pantetheine thus recycling pantothenic acid (vitamin B5) and releasing cysteamine. It is involved in the thymus homing of bone marrow cells. VNN2 plays a role in transendothelial migration of neutrophils and may regulate beta-2 integrin-mediated cell adhesion, migration and motility of neutrophil.

Reference

- Suzuki K. et al., 1999, J. Immunol. 162: 4277-84.
Martin, F. et al., 2001, Immunogenetics. 53 (4):296-306.
Liu T. et al., 2005, J. Proteome Res. 4: 2070-80.
Jansen P.A.M. et al., 2009, J. Invest. Dermatol. 129: 2167-74.