

Recombinant Human VNN1/Vanin-1 Protein (His Tag)

Catalog No. PKSH033204

Note: Centrifuge before opening to ensure complete recovery of vial contents.

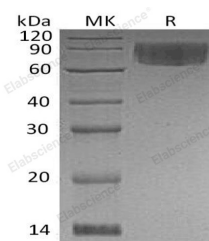
Description

Synonyms	Pantetheinase;Pantetheine Hydrolase;Tiff66;Vascular Non-Inflammatory Molecule 1;Vanin-1;VNN1
Species	Human
Expression Host	HEK293 Cells
Sequence	Gln22-Ser490
Accession	O95497
Calculated Molecular Weight	53.3 kDa
Observed molecular weight	83 kDa
Tag	C-His
Bioactivity	Not validated for activity

Properties

Purity	> 95 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per µg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from a 0.2 µm filtered solution of 20mM PB, 150mM NaCl, pH 7.2. Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 95 % as determined by reducing SDS-PAGE.

Background

Vanin-1 is a cell membrane protein which contains one CN hydrolase domain and belongs to the CN hydrolase family and

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BTD/VNN subfamily. Vanin-1 is also 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. Vanin-1 is widely expressed with higher expression in spleen, kidney and blood and overexpressed in lesional psoriatic skin. 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. Vanin-1 is an epithelial pantetheinase that provides cysteamine to tissue and regulates response to stress. Vanin-1 is expressed by enterocytes, and its absence limits intestinal epithelial cell production of proinflammatory signals. Vanin-1 regulates late adhesion steps of thymus homing under physiological, noninflammatory conditions. The early impact of vanin-1 deficiency on tumor induction was directly correlated to the amount of inflammation and subsequent epithelial proliferation rather than cell death rate. Vanin-1 molecule was shown to be involved in the control of thymus reconstitution following sub-lethal irradiation.