General Information

Gene Name Synonym:
VTCN1

Protein Construction:
A DNA sequence encoding the rat Vtn1 (NP_01019415.1) (Phe29-Ser256) was expressed with a polyhistidine tag at the C-terminus.

Source: Rat

Expression Host: Human Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE.

Endotoxin:
< 1.0 EU per µg protein as determined by the LAL method.

Stability:
Samples are stable for up to twelve months from date of receipt at -70 ℃.

Predicted N terminal: Phe 29

Molecular Mass:
The recombinant rat Vtn1 consists 239 amino acids and predicts a molecular mass of 26.6 kDa.

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

Storage:
Store it under sterile conditions at -20℃ to -80℃ 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.

Protein Description

V-set domain-containing T-cell activation inhibitor 1, also known as B7x, B7H4, B7S1, and VTCN1, is a single-pass type membrane protein belonging to the B7 family of costimulatory proteins. These proteins are expressed on the surface of antigen-presenting cells and interact with ligands on T lymphocytes. They provide costimulatory signals that regulate T cell responses. A soluble form of B7H4 has also been detected. B7X / VTCN1 / B7H4 negatively regulates T-cell-mediated immune response by inhibiting T-cell activation, proliferation, cytokine production and development of cytotoxicity. When expressed on the cell surface of tumor macrophages, B7X / VTCN1 / B7H4 plays an important role, together with regulatory T-cells(Treg), in the suppression of tumor-associated antigen-specific T-cell immunity. B7X / VTCN1 / B7H4 is also involved in promoting epithelial cell transformation. This membrane protein can be up-regulated by IL6 / interleukin-6 and IL10 / interleukin-10 and inhibited by CSF2 / GM-CSF and IL4 / interleukin-4 on antigen-presenting cells.

References


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