

# VISTA/B7-H5

Catalog # PVGS1605

## Specification

## VISTA/B7-H5 - Product Information

Primary Accession **Species** Human

Sequence Phe33-Ala194

**Purity** > 90% as analyzed by SDS-PAGE

Endotoxin Level < 1 EU/  $\mu$ g of protein by gel clotting method

Expression System HEK 293

Formulation

Lyophilized from a 0.2  $\mu m$  filtered solution in PBS.

Reconstitution

It is recommended that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute the lyophilized powder in  $ddH_2O$  or PBS up to 100 µg/ml.

**Q9H7M9** 

Storage & Stability

Upon receiving, this product remains stable for up to 6 months at lower than -70°C. Upon reconstitution, the product should be stable for up to 1 week at 4°C or up to 3 months at -20°C. For long term storage it is recommended that a carrier protein (example 0.1% BSA) be added. Avoid repeated freeze-thaw cycles.

## VISTA/B7-H5 - Additional Information

Gene ID 64115

**Other Names** 

V-type immunoglobulin domain-containing suppressor of T-cell activation, Platelet receptor Gi24 {ECO:0000303|Ref.1}, Stress-induced secreted protein-1 {ECO:0000303|Ref.2}, Sisp-1 {ECO:0000303|Ref.2}, V-set domain-containing immunoregulatory receptor, VSIR (<a href="http://www.genenames.org/cgi-bin/gene\_symbol\_report?hgnc\_id=30085" target="\_blank">HGNC:30085</a>)

#### **Target Background**

V-domain Ig suppressor of T cell activation (VISTA), also known as B7-H5, is a type I transmembrane protein that functions as an immune checkpoint. VISTA belongs to the immunoglobulin superfamily and has one IgV domain. It is primarily expressed in white blood cells and its transcription is partially controlled by p53. VISTA can act as both a ligand and a receptor on



T cells to inhibit T cell effector function and maintain peripheral tolerance. VISTA may also promote differentiation of embryonic stem cells by inhibiting BMP4 signaling (By similarity) and may stimulate MMP14-mediated MMP2 activation.

### VISTA/B7-H5 - Protein Information

Name VSIR (<u>HGNC:30085</u>)

Function

Immunoregulatory receptor which inhibits the T-cell response (PubMed:<a href="http://www.uniprot.org/citations/24691993" target="\_blank">24691993</a>). May promote differentiation of embryonic stem cells, by inhibiting BMP4 signaling (By similarity). May stimulate MMP14- mediated MMP2 activation (PubMed:<a href="http://www.uniprot.org/citations/20666777" target="\_blank">20666777</a>).

**Cellular Location** Cell membrane; Single-pass type I membrane protein

#### **Tissue Location**

Expressed in spleen. Detected on a number of myeloid cells including CD11b monocytes, CD66b+ neutrophils, at low levels on CD4+ and CD8+ T-cells, and in a subset of NK cells. Not detected on B cells (at protein level). Expressed at high levels in placenta, spleen, plasma blood leukocytes, and lung. Expressed at moderate levels in lymph node, bone marrow, fat, uterus, and trachea Has low expression levels in other tissues

#### VISTA/B7-H5 - Protocols

Provided below are standard protocols that you may find useful for product applications.

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

VISTA/B7-H5 - Images