

## Recombinant Human VTCN1 protein, His-tagged

Cat. No. VTCN1-662H    Lot. No. (See product label)

### SPECIFICATION

|                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b>     | Recombinant Human VTCN1 (Phe29-Ala258) protein was fused to His-tag at C-terminus and expressed in human 293 cells (HEK293).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Species</b>              | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Source</b>               | HEK293                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>ProteinLength</b>        | Phe29-Ala258                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Description</b>          | V-set domain-containing T-cell activation inhibitor 1 (VTCN1) is also known as Immune costimulatory protein B7-H4, Protein B7S1, T-cell costimulatory molecule B7x, B7H4, which belongs to the immunoglobulin superfamily and BTN/MOG family. VTCN1 contains two Ig-like V-type (immunoglobulin-like) domains. The expression of VTCN1 is up-regulated by IL6 and IL10 and is inhibited by GM-CSF and IL4 on antigen-presenting cells (APCs). VTCN1/B7-H4 negatively regulates T-cell-mediated immune response by inhibiting T-cell activation, proliferation, cytokine production and development of cytotoxicity. VTCN1 involved in promoting epithelial cell transformation. |
| <b>Predicted N Terminal</b> | Phe29                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Form</b>                 | Lyophilized from 0.22 µm filtered solution in PBS, pH7.4, 10% trehalose.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Molecular Mass</b>       | The protein has a calculated MW of 26.1 kDa. The protein migrates as 43-60 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

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|                       |                                                                                                                                                                                                                                                                                                                                                                 |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Endotoxin</b>      | Less than 1.0 EU per µg by the LAL method.                                                                                                                                                                                                                                                                                                                      |
| <b>Purity</b>         | >95% as determined by SDS-PAGE.                                                                                                                                                                                                                                                                                                                                 |
| <b>Storage</b>        | <p>For long term storage, the product should be stored at lyophilized state at -20 centigrade or lower.</p> <p>Please avoid repeated freeze-thaw cycles.</p> <p>This product is stable after storage at:</p> <p>-20 to -70 centigrade for 12 months in lyophilized state;</p> <p>-70 centigrade for 3 months under sterile conditions after reconstitution.</p> |
| <b>Reconstitution</b> | It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 ug/ul. Centrifuge the vial at 4°C before opening to recover the entire contents.                                                                                                                                                                                   |

## GENE INFORMATION

|                        |                                                                                                                                                                                                                                                                                                                                                                                   |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>       | VTCN1                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Official Symbol</b> | VTCN1                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Synonyms</b>        | VTCN1; V-set domain containing T cell activation inhibitor 1; V-set domain-containing T-cell activation inhibitor 1; B7 family member; H4; B7 superfamily member 1; B7 H4; B7H4; B7S1; B7X; FLJ22418; B7 family member, H4; T cell costimulatory molecule B7x; T-cell costimulatory molecule B7x; immune costimulatory protein B7-H4; B7-H4; B7h.5; VCTN1; PRO1291; RP11-229A19.4 |
| <b>Gene ID</b>         | 79679                                                                                                                                                                                                                                                                                                                                                                             |
| <b>mRNA Refseq</b>     | NM_001253849                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Protein Refseq</b>  | NP_001240778                                                                                                                                                                                                                                                                                                                                                                      |

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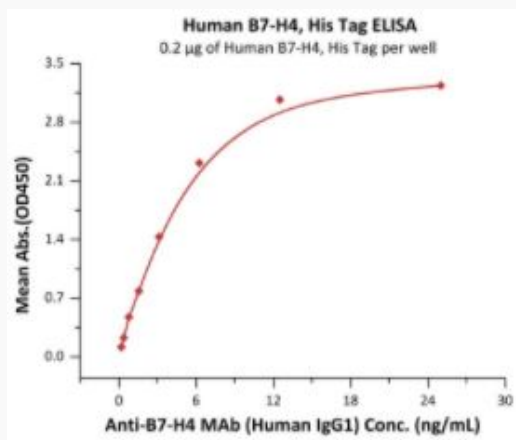
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MIM 608162

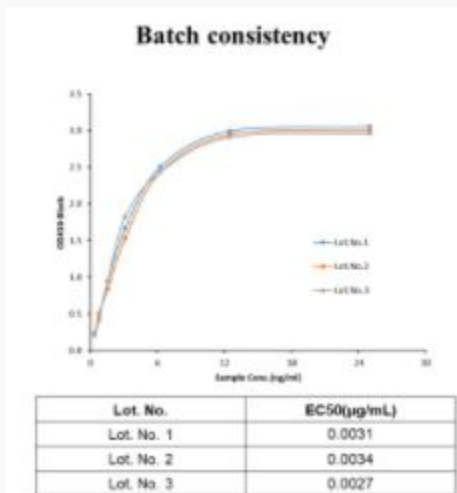
UniProt ID Q7Z7D3

#### Bioactivity-ELISA of VTCN1-662H



Immobilized Human B7-H4, His Tag at 2 µg/mL (100 µL/well) can bind Anti-B7-H4 MAb (Human IgG1) with a linear range of 0.2-6 ng/mL (QC tested).

#### Bioactivity-ELISA



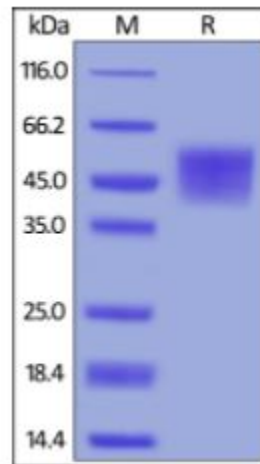
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## Batch consistency of Bioactivity-ELISA

### SDS-PAGE of VTCN1-662H



Human B7-H4, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.

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