



## Recombinant Protein Technical Manual

**Recombinant Human B7-H4/VTCN1 Protein (aa 29-258, His Tag)**  
RPES3199

### Product Data:

**Product SKU:** RPES3199

**Size:** 50µg

**Species:** Human

**Expression host:** HEK293 Cells

**Uniprot:** Q7Z7D3

### Protein Information:

**Molecular Mass:** 26.8 kDa

**AP Molecular Mass:** 43-48 kDa

**Tag:** C-His

**Bio-activity:**

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

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

**Storage:** 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 sterile PBS, pH 7.4.

**Reconstitution:** Please refer to the printed manual for detailed information.

**Application:**

**Synonyms:** B7S1; B7x; Vtcn1; B7h.5; B7-H4; B7H4T-cell costimulatory molecule B7x; B7S1VCTN1; B7XPRO1291; FLJ22418; Immune costimulatory protein B7-H4; Protein B7S1; T cell costimulatory molecule B7x; V-set domain containing T cell activation inhibitor 1; V-set domain-containing T-cell activation inhibitor 1

## Immunogen Information:

**Sequence:** Phe29-Ala258

## Background:

V-set domain-containing T-cell activation inhibitor 1, also known as B7X, B7H4, B7S1, and VTCN1, is a single-pass type I 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.