

Recombinant Human TNFRSF14 Protein (Met1-Val202), HIgG1 Fc-tagged

Cat. No. TNFRSF14-1150H Lot. No. (See product label)

SPECIFICATION

Product Overview Recombinant Human TNFRSF14 Protein (NP_003811.2) (Met1-Val202) was produced by HEK293 Cells expression system. This protein was expressed with the Fc region of human IgG1 at the C-terminus.

Species Human

Source HEK293

ProteinLength Met1-Val202

Description Herpesvirus entry mediator (HVEM), also referred to as TNFRSF14, TR2 (TNF receptor-like molecule) and ATAR (another TRAF-associated receptor), is a member of type I transmembrane protein belonging to the TNF-receptor superfamily. It is expressed on many immune cells, including T and B cells, NK cells, monocytes, and neutrophils. Two TNF superfamily ligands lymphotoxin α (TNF- β) and LIGHT (TNFSF14) are identified as cellular ligands for HVEM and initiate the positive signaling. However, recent studies have revealed that HVEM is also involved in the unique inhibitory signaling pathway for T cells through activating tyrosine phosphorylation of the immunoreceptor tyrosine-based inhibitory motif (ITIM) in B and T lymphocyte attenuator (BTLA). HVEM provides a stimulatory signal following engagement with LIGHT (TNFSF14) on T cells. In contrast, it can also provide an inhibitory signal to T cells when it binds the B and T lymphocyte attenuator (BTLA), a ligand member of the Immunoglobulin (Ig) superfamily. Thus, HVEM may be viewed

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as a molecular switch, capable of facilitating both stimulatory and inhibitory cosignaling in T cells. Substantial evidence from both human disease and from experimental mouse models has indicated that dysregulation of the LIGHT-HVEM-BTLA cosignaling pathway can cause inflammation in the lung and in mucosal tissues.

Predicted N Terminal Pro 37

Form Lyophilized from sterile PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization.

Molecular Mass The recombinant human TNFRSF14 consists of 404 amino acids and predicts a molecular mass of 44.2 kDa.

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

Purity > 95 % as determined by SDS-PAGE.

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

Storage Store it under sterile conditions at -20 centigrade to -80 centigrade. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

Reconstitution It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 mg/ml. Centrifuge the vial at 4°C before opening to recover the entire contents.

Shipping In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature.
Bulk packages of recombinant proteins are provided as frozen liquid. They are

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shipped out with blue ice unless customers require otherwise.

GENE INFORMATION

Gene Name	TNFRSF14 tumor necrosis factor receptor superfamily, member 14 [Homo sapiens]
Official Symbol	TNFRSF14
Synonyms	TNFRSF14; ATAR; CD270; HVEA; HVEM; LIGHTR; TR2; CD40-like protein;
Gene ID	8764
mRNA Refseq	NM_003820
Protein Refseq	NP_003811
MIM	602746
UniProt ID	Q92956

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