

## Recombinant Rhesus macaque HVEM/TNFRSF14/CD270 Protein (Fc Tag)

Catalog Number: PKSQ050075

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

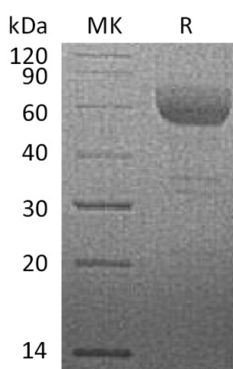
### Description

<b>Species</b>	Rhesus macaque
<b>Source</b>	HEK293 Cells-derived Rhesus macaque HVEM/TNFRSF14/CD270 protein Pro37-Val203, with an C-terminal Fc
<b>Calculated MW</b>	44.7 kDa
<b>Observed MW</b>	60 kDa
<b>Accession</b>	XP_005545061.1
<b>Bio-activity</b>	Not validated for activity

### Properties

<b>Purity</b>	> 95 % as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 1.0 EU per µg of the protein as determined by the LAL method.
<b>Storage</b>	Generally, 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.
<b>Shipping</b>	This product is provided as lyophilized powder which is shipped with ice packs.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4. Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
<b>Reconstitution</b>	Please refer to the specific buffer information in the printed manual. Please refer to the printed manual for detailed information.

### Data



> 95 % as determined by reducing SDS-PAGE.

### Background

Herpesvirus entry mediator (HVEM) is a type I membrane protein in the TNF receptor superfamily, and it can both promote and inhibit T cell activity. HVEM is highly expressed on naïve CD4<sup>+</sup> T cells, CD8<sup>+</sup> T memory cells, regulatory T cells, dendritic cells, monocytes, and neutrophils. It functions as a receptor for BTLA, CD160, LIGHT/TNFSF14, and Lymphotoxin- $\alpha$ . Ligation of HVEM by LIGHT triggers T cell, monocyte, and neutrophil activation and contributes to Th1 inflammation and cardiac allograft rejection. In contrast, HVEM binding to CD160 or BTLA suppresses T cell and dendritic cell activation and dampens intestinal inflammation. HVEM enhances the development of CD8<sup>+</sup> T cell memory and Treg function. It is additionally expressed on intestinal epithelial cells, where its binding by intraepithelial lymphocyte (IEL) expressed CD160 promotes epithelial integrity and host defense. The herpesvirus envelope glycoprotein gD, which binds HVEM to initiate membrane fusion, can antagonize both BTLA and LIGHT binding.