

# PRODUCT DATA SHEET



Bioworld Technology, Inc.

## Recombinant HVEM-Fc, Human

Catalog Number: BK0355-1mg

Source: SF9 insect cells

Quantity: 1mg

### Description:

Herpes Virus Entry Mediator (HVEM) is a transmembrane protein that is the receptor for TNFSF14 (also known as LIGHT) and is therefore referred to as TNFRSF14. HVEM is expressed broadly on immune cells such as T cells, natural killer (NK) cells and monocytes. The interaction of 3 molecules of LIGHT with three molecules of HVEM forms a hexameric complex that leads to the recruitment and retention of effector cells and activates NK cells to produce large amounts of IFN- $\gamma$  and GM-CSF. In addition to the canonical binding partner LIGHT, HVEM can also bind to the inhibitory signaling protein, B- and T- lymphocyte attenuator (BTLA), which suppresses immune responses. Therefore, the HVEM network plays an important role in regulating immunity and the behavior of lymphocytes. Recombinant human HVEM-Fc (rhHVEM-Fc) produced in Sf9 insect cells is a single glycosylated polypeptide chain containing 376 amino acids. A fully biologically active molecule, rhHVEM-Fc has a molecular mass of around 45 kDa analyzed by reducing SDS-PAGE and is obtained by chromatographic techniques at GenScript.

### Molecular Weight:

~45 kDa, observed by reducing SDS-PAGE.

### Purity:

> 95% by SDS-PAGE and HPLC analyses.

### Biological Activity:

ED50 < 0.1  $\mu$ g/mL, measured by the neutralization assay using 929 cells in presence of 0.25 ng/mL of human TNF-beta, corresponding to a specific activity of >  $1 \times 10^4$  units/mg.

### Physical Appearance:

Sterile Filtered White lyophilized (freeze-dried) powder.

### Formulation:

Lyophilized after extensive dialysis against PBS.

### AA Sequence:

LPSCKEDEYVVGSECCPKCSPGYRVKEAC-  
GELTGTVCEPCPPGT-  
IAHLNGLSKCLQCQMCDPAMGLRASRNCSTRTE-  
NAVCGCSPGHFCIVQGDHCAACRAYATSSPGQR  
VQKGGTESQDTLCQNCPPGTFSPNGTLEEC-  
QHQTKRCDKTHTCPPCPAPPELLGGPSVFLF-  
PPKPKDTLMIS-  
RTPEVTCVVVDVSHEDPEVKFNWY-  
VDGVEVHNAK-  
TKPREEQYNSTYRVVSVLTVLHQDWLNGKEY-  
KCKVSNKALPAPIEK-  
TISKAKGQPREPQVYTLPPSRDELTKNQVSLTCLV  
KGFYPSDIAVEWESNGQPEN-  
NYKTTTPVLDSDGS-  
FFLYSKLTVDKSRWQQGNVFCSSVM-  
HEALHNHYTQKSLSLSPGK

### Endotoxin:

< 0.2 EU/ $\mu$ g, determined by LAL method.

### Reconstitution:

Reconstituted in ddH<sub>2</sub>O at 100  $\mu$ g/mL.

### Storage:

Lyophilized recombinant human HVEM-Fc (rhHVEM-Fc) remains stable up to 6 months at -80  $^{\circ}$ C from date of receipt. Upon reconstitution, rhHVEM-Fc remains stable up to 2 weeks at 4  $^{\circ}$ C or up to 3 months at -20  $^{\circ}$ C.

### Usage:

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