

DATASHEET

Version 2016-08-02

HVEM-Fc, Human

Cat. No.: Z03224-1**Size:** 1 mg**Synonyms:** TNFRSF14, TR2**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- γ 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.

Amino Acid Sequence:

LPSCKEDEYP VGSECCPKCS PGYRVKEACG
ELTGTVCEPC PPGTYIAHLN GLSKCLQCQM CDPAMGLRAS

RNCSRTENAV CGCSPGHFCI VQDGDHCAAC
RAYATSSPGQ RVQKGGTESQ DTLCQNCPPG
TFSPNGTLEE CQHQTKRSCD KTHTCPPCPA PELLGGPSVF
LFPPKPKDIL MISRTPEVTC VVVDVSHEDP EVKFNWYVDD
VEVHNAKTKP REEQYNSTYR VVSVLTVLHQ
DWLNGKEYKC KVSNAKALPAP IEKTISKAKG QPREPQVYTL
PPSRDELTKN QVSLTCLVKG FYPSDIAVEW ESNQGPENNY
KTPPVLDSD GSFFLYSKLT VDKSRWQQGN VFSCSVMHEA
LHNHYTQKSL SLSPGK

Source: *Sf9 insect cells***Species:** Human**Biological Activity:** ED₅₀ < 0.1 μ 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 10⁴ units/mg.**Accession No:** Q92956; P01857**Molecular Weight:** ~45 kDa, observed by reducing SDS-PAGE.**Formulation:** Lyophilized after extensive dialysis against PBS.**Reconstitution:** Reconstituted in ddH₂O at 100 μ g/mL.**Purity:** > 95% by SDS-PAGE and HPLC analyses.**Endotoxin Level:** < 0.2 EU/ μ g, determined by LAL method.**Storage:** Lyophilized recombinant **human HVEM-Fc (rhHVEM-Fc)** remains stable up to 6 months at -80°C from date of receipt. Upon reconstitution, rhHVEM-Fc remains stable up to 2 weeks at 4°C or up to 3 months at -20°C.

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