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
ELTGTVCCEPC PPGTYIAHLN GLSKCLQCM CDPAMGLRAS
RNCSRTENAV CGCSPGHFCI VQDGDHCAAC
RAYATSSPGQ RVQKGTESEQ DTLCQNCPPG
TFSPNGTLEE COHOTKRSCD KTHTCPCCPA PELLGGPSVF
LFPPKPKDTL MISRTPEVTG VVVDVSHEDP EVKFNWWYVDG
VEVHNAKTP REEEQNSTYY VVSVTLHQ
DWLNGKEYKC KVSNKALPAP IEKTISKAKG QPREPOVYTL
PPSRDELTKQ QVSLTCLVKG FYPSDIAEVEW ESNQ Penny
KTTPVLSDS GSFLYSLKLT VDKSRWQQGN VFSCSVMHEA
LHNHYTQKSL SLSPGK

Source: Sf9 insect cells
Species: Human

Biological Activity: ED50 < 0.1 μg/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 > 1×10^4 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 μg/mL.

Purity: > 95% by SDS-PAGE and HPLC analyses.

Endotoxin Level: < 0.2 EU/μg, 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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