**DESCRIPTION**

**Source**
Mouse myeloma cell line, NS0-derived

**Rat E-Selectin (Trp22 - Pro494) Accession # P98105**

**IEGRMD**

**Human IgG1 (Pro100 - Lys330)**

**N-terminal Sequence Analysis**
Trp22

**Structure / Form**
Disulfide-linked homodimer

**Predicted Molecular Mass**
78 kDa (monomer)

**SPECIFICATIONS**

**SDS-PAGE**
110-120 kDa, reducing conditions

**Activity**
Measured by the ability of the immobilized protein to support the adhesion of U937 human histiocytic lymphoma cells. When 5 x 10⁴ cells/well are added to rat E-Selectin/Fc Chimera coated plates (2 µg/mL with 100 µL/well), approximately 85-100% will adhere for 1 hour incubation at 37 °C.

*Optimal dilutions should be determined by each laboratory for each application.*

**Endotoxin Level**
<0.10 EU per 1 µg of the protein by the LAL method.

**Purity**
>90%, by SDS-PAGE under reducing conditions and visualized by silver stain.

**Formulation**
Lyophilized from a 0.2 µm filtered solution in Tris-Citrate. See Certificate of Analysis for details.

**PREPARATION AND STORAGE**

**Reconstitution**
Reconstitute at 100 µg/mL in sterile PBS.

**Shipping**
The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

**Stability & Storage**
Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 3 months, -20 to -70 °C under sterile conditions after reconstitution.

**BACKGROUND**

E-Selectin (Endothelial Leukocyte Adhesion Molecule-1, ELAM-1, CD62E), a member of the Selectin family, is a 107 - 115 kDa cell surface glycoprotein. It is transiently expressed on vascular endothelial cells in response to IL-1β and TNF-α, and demonstrates peak expression at 4 hours, and decay at 24 hours, in response to activation. E-Selectin ligands, expressed on neutrophils, monocytes, and a subset of memory T cells, are sialylated, fucosylated molecules which bind to the lectin domain of E-Selectin. Immunocytochemical techniques have demonstrated the expression of E-Selectin on healthy and diseased tissue. The human and rat proteins share approximately 67% amino acid identity. The mouse and rat proteins share approximately 78% amino acid identity.

E-Selectin mediates the attachment of flowing leukocytes to the blood vessel wall during inflammation by binding to E-Selectin ligands on leukocytes. These interactions are labile and permit leukocytes to roll along the vascular endothelium in the direction of blood flow. This initial interaction is followed by a stronger interaction involving ICAM-1 and VCAM-1 that leads eventually to extravasation of the white blood cell through the blood vessel wall into the extracellular matrix tissue.

ELISA techniques have shown that detectable levels of soluble E-Selectin are present in the biological fluids of apparently normal individuals. Furthermore, a number of studies have reported that levels of E-Selectin may be elevated in subjects with a variety of pathological conditions.