Recombinant Human E-Selectin/CD62E His-tag

Catalog Number: 10258-ES

DESCRIPTION

Source	Chinese Hamster Ovary cell line, CHO-derived human E-Selectin/CD62E protein Trp22-Pro556, with a C-terminal 6-His tag Accession # P16581
N-terminal Sequence Analysis	Trp22
Predicted Molecular Mass	59 kDa

SPECIFICATIONS

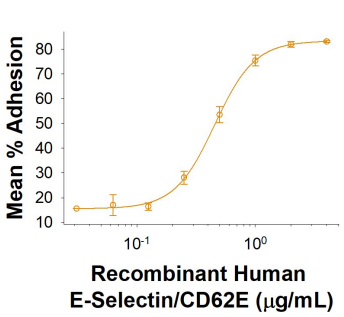
SDS-PAGE	84-109 kDa, under reducing conditions
Activity	Measured by the ability of the immobilized protein to support the adhesion of U937 human histiocytic lymphoma cells. The ED_{50} for this effect is 0.2-1 µg/mL
Endotoxin Level	<0.10 EU per 1 µg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 500 µg/mL in 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.

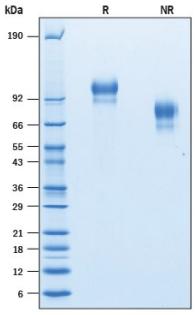
DATA

Bioactivity



Recombinant Human E-Selectin/CD62E (Catalog # 10258-ES) supports the adhesion of U937 human histiocytic lymphoma cell. The ED_{50} for this effect is 0.2-1 µg/mL.

SDS-PAGE



2 µg/lane of Recombinant Human E-Selectin/CD62E His-tag was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining, showing bands at 84-109 kDa and 60-84 kDa, respectively .

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 mouse E-Selectin proteins share 81% amino acid similarity.

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.

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