Rat E-Selectin/CD62E Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF977

DESCRIPTION

Species Reactivity	Rat
Specificity	Detects E-Selectin/CD62E in direct ELISAs and Western blots. In direct ELISAs, approximately 15% cross-reactivity with recombinant mouse (rm) E-Selectin is observed, approximately 5% cross-reactivity with recombinant human (rh) E-Selectin is observed and less than 1% cross-reactivity with rmL-Selectin and rmP-Selectin is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant rat E-Selectin/CD62E Trp22-Pro494 Accession # P98105
Endotoxin Level	<0.10 EU per 1 µg of the antibody by the LAL method.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Western Blot	0.1 µg/mL	Recombinant Rat E-Selectin/CD62E Fc Chimera (Catalog # 977-ES)
Immunohistochemistry	5-15 µg/mL	Perfusion fixed frozen sections of rat intestine and thymus
Adhesion Blockade	The adhesion of U937 human histiocytic lymphoma cells (5 x 10^4 cells/well) to immobilized Recombinant Rat E-Selectin/CD62E (Catalog # 977-ES 2 µg/mL, 100 µL/well) was maximally inhibited (80-100%) by 25 µg/mL of the antibody.	

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
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. ● 6 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.

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