E-Selectin

Method:	Quantitative sandwich enzyme immunoassay (ELISA)
Kit Manufacturer:	R&D Systems, Inc. Minneapolis, MN 55413
Description:	E-Selectin (also known as Endothelial Leukocyte Adhesion Molecule-1, ELAM-1, or CD62E) is a 115 kDa, type I transmembrane glycoprotein expressed only on endothelial cells and only after activation by inflammatory cytokines (IL-1_ or TNF-_) or endotoxins. Expression is transitory, reaching a maximum within about 6 hours of stimulation and then declining with shedding of soluble E-Selectin. Cell-surface E-Selectin is a mediator of the rolling attachment of leukocytes to the endothelium, an essential step in extravasation of leukocytes at the site of inflammation thereby playing a key role in localized inflammatory response. E-Selectin is believed to be particularly important in inflammation involving the skin. This assay employs the quantitative sandwich enzyme immunoassay technique. A monoclonal antibody specific for sE-Selectin has been pre-coated onto a microplate. Standards and samples are pipetted into the wells and any sE-Selectin present is bound by the immobilized antibody. After washing away any unbound substances, an enzyme-linked monoclonal antibody specific for sE-Selectin is added to the wells. Following a wash to remove any unbound antibody-enzyme reagent, a substrate solution is added to the wells and color develops in proportion to the amount of sE-Selectin bound in the initial step. The color development is stopped and the intensity of the color is measured.

Collection and Performance Characteristics

Tube type:	Preferred: Serum (SST) Alternate: Plasma with heparin or citrate as an anticoagulant.
Minimum Volume:	0.2 mL Avoid repeated freeze-thaw cycles. Store at -80°C until analysis is performed
Lowest Reportable Value:	0.125 ng/mL
Dynamic range:	0.125 ng/mL – 8.0 ng/mL
Precision:	Intra-assay variation is 5.2 – 6.6% Inter-assay variation is 7.3 - 8.7%
Reference Range:	Unknown