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Product Information

Anti-E-Selectin (CD62E) antibody,
Mouse monoclonal
clone 1.2B6, purified from hybridoma cell culture

Catalog Number **S9555**

Product Description

Monoclonal Anti-E-Selectin (CD62E) (mouse IgG1 isotype) is derived from the 1.2B6 hybridoma produced by the fusion of mouse myeloma cells and splenocytes from BALB/c mice immunized with TNF-α activated human endothelial cells.[1] The 1.2B6 producing hybridoma was developed by D.O. Haskard and coworkers[1] at the Rheumatology Unit, the Division of Medicine, Guy's Hospital, London.

The isotype is determined by a double diffusion immunoassay using Mouse Monoclonal Antibody Isotyping Reagents, Catalog Number ISO2. The antibody is purified using protein A.

Monoclonal Anti-E-Selectin (CD62E) reacts specifically with E-Selectin (CD62E) expressed on the surface of activated endothelial cells. The antibody may weakly cross-react with recombinant human P-Selectin and human platelet P-Selectin. Cross-reactivity has been observed with porcine E-Selectin. It may be used in flow cytometry, immunohistochemistry (frozen sections),[2] ELISA,[1] immunoprecipitation,[1] and immunoblotting (non-reduced).

It inhibits neutrophils', eosinophils',[2,3] and a skin-homing T cell subpopulation's[3] adhesion to E-Selectin transfected COS cells[3] or activated endothelial cells.[2] It may be used for studying soluble E-Selectin using capture ELISA.[4]

E-Selectin (CD62E) is a 100-115 kDa glycoprotein that contains an amino terminal c-type lectin-domain, followed by a single EGF-like domain, six short consensus repeats (SCR), a transmembraneous domain, and a short C-terminal cytoplasmic domain. It shares considerable amino acid sequence homology with P- and L-Selectin. Acutely activated endothelial cells express E-Selectin where it participates in the recruitment of leukocytes at sites of acute inflammation. It is detected on endothelium of blood vessels in chronic inflammatory lesions of the skin,[3] colon, and synovium.[5] E-Selectin is expressed constitutively on some endothelia.

Soluble E-Selectin is detectable in plasma and is elevated in patients with various inflammatory syndromes. E-Selectin (CD62E) mediates tethering and rolling of myeloid cells and some memory T cells on activated vascular endothelium at the vessel wall. It seems to be involved in the adhesion of cancer cells to vascular endothelial cells during hematogenous tumor metastasis. The initial binding of leukocytes by E-Selectin (CD62E) is thought to trigger the recruitment and activation of other adhesion molecules. *In vitro* upregulation of E-Selectin (CD62E) expression of cultured endothelial cells occurs upon activation by various inflammatory mediators, such as endotoxin, IL-1β or TNF-α. Peak levels of E-Selectin (CD62E) occur within 4-8 hours. Involvement of E-Selectin (CD62E) in tumor cell-cultured endothelial cell adhesion has been reported.[7,8] The major neutrophil ligand for E-Selectin is the sialyl Lewis^x tetrasaccharide determinant.

Reagents

Supplied as a 0.2 μm-filtered solution in 0.01 M phosphate buffered saline, pH 7.4.

Antibody concentration: ~2 mg/ml (E_{280})

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

For continuous use, store sterile at 2-8 °C. For extended storage freeze in sterile working aliquots. Repeated freezing and thawing, or storage in "frost-free" freezers, is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use.

Product Profile

Indirect immunofluorescence: a working concentration of 1-2 μg/ml is determined using 293-T cells transfected with E-Selectin fusion protein.

References

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