

Human SELP / selectin P / P-selectin Protein (Fc Tag)

Catalog Number: 13025-H02H



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

CD62; CD62P; GMP140; GRMP; LECAM3; P-Selectin; PADGEM; PSEL

Protein Construction:

A DNA sequence encoding the human SELP (AAN06828.1) extracellular domain (Met 1-Ala 771) was fused with the Fc region of human IgG1 at the C-terminus.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: > 85 % as determined by SDS-PAGE

Bio Activity:

Measured by the ability of the immobilized protein to support the adhesion of U937 human histiocytic lymphoma cells. When 5×10^4 cells/well are added to SELP/Fc Chimera coated plates (10 $\mu\text{g/mL}$ with 100 $\mu\text{L/well}$), > 80% cells will adhere after 1 hour at 37°C.

Endotoxin:

< 1.0 EU per μg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Trp 42

Molecular Mass:

The recombinant human SELP/Fc is a disulfide-linked homodimeric protein. The reduced monomer consists of 971 amino acids and has a predicted molecular mass of 107 kDa. The apparent molecular mass of the reduced monomer is approximately 130-150 kDa in SDS-PAGE under reducing conditions due to glycosylation.

Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

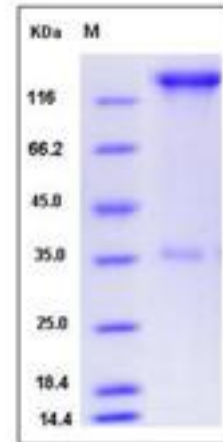
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

P selectin (SELP) is a 140kDa protein that is stored in the alpha-granules of platelets and Weibel-Palade bodies of endothelial cells. SELP mediates rapid rolling of leukocyte rolling over vascular surfaces during the initial steps in inflammation through interaction with PSGL1. P selectin is a cell adhesion molecule on the surface of activated endothelial cells. Cellular adhesion molecules are a large family of proteins that attach the cytoskeleton and intracellular signaling cascades with the extracellular environment. SELP is a calcium-dependent receptor for myeloid cells that binds to sialylated forms of Lewis blood group carbohydrate antigens on neutrophils and monocytes. This protein redistributes to the plasma membrane during platelet activation and degranulation and mediates the interaction of activated endothelial cells or platelets with leukocytes.

References

1. Johnson-Tidey RR, *et al.* (1994) Increase in the adhesion molecule P-selectin in endothelium overlying atherosclerotic plaques. Coexpression with intercellular adhesion molecule-1. *Am J Pathol.* 144(5):952-61.
2. Walcheck B, *et al.* (1996) Neutrophil-neutrophil interactions under hydrodynamic shear stress involve L-selectin and PSGL-1. A mechanism that amplifies initial leukocyte accumulation of P-selectin in vitro. *J Clin Invest.* 98(5):1081-7.
3. Foreman KE, *et al.* (1994) C5a-induced expression of P-selectin in endothelial cells. *J Clin Invest.* 94(3):1147-55.

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For US Customer: Fax: 267-657-0217 • Tel: 215-583-7898

Global Customer: Fax :+86-10-5862-8288 • Tel:+86-400-890-9989 • <http://www.sinobiological.com>