

P-selectin Protein, Human (HEK293, His)

Cat. No.:	HY-P70803
Synonyms:	P-selectin; CD62 antigen-like family member P; Granule membrane protein 140; GMP-140; Leukocyte-endothelial cell adhesion molecule 3; LECAM3; PADGEM
Species:	Human
Source:	HEK293
Accession:	P16109 (W42-A771)
Gene ID:	6403
Molecular Weight:	Approximately 95-130 kDa due to the glycosylation

PROPERTIES

AA Sequence

W T Y H Y S T K A Y	S W N I S R K Y C Q	N R Y T D L V A I Q	N K N E I D Y L N K
V L P Y Y S S Y Y W	I G I R K N N K T W	T W V G T K K A L T	N E A E N W A D N E
P N N K R N N E D C	V E I Y I K S P S A	P G K W N D E H C L	K K K H A L C Y T A
S C Q D M S C S K Q	G E C L E T I G N Y	T C S C Y P G F Y G	P E C E Y V R E C G
E L E L P Q H V L M	N C S H P L G N F S	F N S Q C S F H C T	D G Y Q V N G P S K
L E C L A S G I W T	N K P P Q C L A A Q	C P P L K I P E R G	N M T C L H S A K A
F Q H Q S S C S F S	C E E G F A L V G P	E V V Q C T A S G V	W T A P A P V C K A
V Q C Q H L E A P S	E G T M D C V H P L	T A F A Y G S S C K	F E C Q P G Y R V R
G L D M L R C I D S	G H W S A P L P T C	E A I S C E P L E S	P V H G S M D C S P
S L R A F Q Y D T N	C S F R C A E G F M	L R G A D I V R C D	N L G Q W T A P A P
V C Q A L Q C Q D L	P V P N E A R V N C	S H P F G A F R Y Q	S V C S F T C N E G
L L L V G A S V L Q	C L A T G N W N S V	P P E C Q A I P C T	P L L S P Q N G T M
T C V Q P L G S S S	Y K S T C Q F I C D	E G Y S L S G P E R	L D C T R S G R W T
D S P P M C E A I K	C P E L F A P E Q G	S L D C S D T R G E	F N V G S T C H F S
C D N G F K L E G P	N N V E C T T S G R	W S A T P P T C K G	I A S L P T P G L Q
C P A L T T P G Q G	T M Y C R H H P G T	F G F N T T C Y F G	C N A G F T L I G D
S T L S C R P S G Q	W T A V T P A C R A	V K C S E L H V N K	P I A M N C S N L W
G N F S Y G S I C S	F H C L E G Q L L N	G S A Q T A C Q E N	G H W S T T V P T C
Q A G P L T I Q E A			

Biological Activity

1. Measured by the ability of the immobilized protein to support the adhesion of U937 human histiocytic lymphoma cells. The ED₅₀ for this effect is 14.18 µg/mL, corresponding to a specific activity is 70.5219 units/mg.

2. Measured by the ability of the immobilized protein to support the adhesion of U937 human histiocytic lymphoma cells. P-Selectin, immobilized at 10 µg/mL, will induce ≥72.39% adhesion on U937 cells (100 µL/well at 1 x 10⁶ cells/mL).

Appearance

Lyophilized powder

Formulation

Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4.

Endotoxin Level

<1 EU/µg, determined by LAL method.

Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background

P-selectin, a Ca(2+)-dependent receptor on myeloid cells, facilitates the binding to carbohydrates on neutrophils and monocytes, playing a crucial role in the interaction of activated endothelial cells or platelets with leukocytes. The ligand recognized by P-selectin is sialyl-Lewis X, and this interaction is pivotal for the rapid rolling of leukocytes over vascular surfaces during the initial stages of inflammation, accomplished through engagement with SELPLG. Additionally, P-selectin forms interactions with SNX17 and mediates adhesion and rolling of neutrophils through its association with SELPLG/PSGL1 and PODXL2. This interaction is contingent on the sialyl-Lewis X epitope of SELPLG and PODXL2, as well as the specific tyrosine sulfation on SELPLG.

Caution: Product has not been fully validated for medical applications. For research use only.

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