abcam

ab6632

Anti-P-Selectin (CD62P) antibody [AK-6]

Recombinant

Key facts

Isotype	IgG1
Host species	Mouse
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	AK-6
Purification technique	Affinity purification Protein A
Specificity	MCA796 recognises the CD62P glycoprotein, a 140kD molecule expressed by activated platelets and endothelial cells.
Light chain type	kappa
Concentration	0.974 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →
Purification notes	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant.

Reactivity data

Flow Cyt

Tested

Species	Human
Dilution info	0.2 µg/mL
Notes	ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.

IHC-P

Tested

Species	Human
Dilution info	10 µg/mL
Notes	Perform heat-mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

ICC/IF

Tested

Species	Human
Dilution info	10 µg/mL
Notes	-

IHC-Fr

Tested

Species	Human
Dilution info	0.01 µg/mL
Notes	-

Target data

See full target information SELP

Function	Ca(2+)-dependent receptor for myeloid cells that binds to carbohydrates on neutrophils and monocytes. Mediates the interaction of activated endothelial cells or platelets with leukocytes. The ligand recognized is sialyl-Lewis X. Mediates rapid rolling of leukocyte rolling over vascular surfaces during the initial steps in inflammation through interaction with SELPLG. Mediates cell-cell interactions and

cell adhesion via the interaction with integrin alpha-IIb/beta3 (ITGA2B:ITGB3) and integrin alpha-V/beta-3 (ITGAV:ITGB3) (PubMed:37184585).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

This product has switched from a hybridoma to recombinant production method on 22nd July 2021.
What are the advantages of a recombinant monoclonal antibody?
This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	CD62P also known as P-selectin is a cell adhesion molecule expressed on the surface of activated endothelial cells and platelets. It is a type of protein with a known molecular weight of approximately 140 kDa. P-selectin plays a mechanical role in mediating leukocyte rolling on the endothelium which is an initial step in the inflammatory response. This protein is rapidly translocated to the plasma membrane upon platelet activation and is stored in alpha granules of platelets and Weibel-Palade bodies of endothelial cells.
Biological function summary	P-selectin is critical in the recruitment of leukocytes to sites of tissue injury and infection. It facilitates the adhesion of leukocytes to the vascular endothelium by binding to its ligand PSGL-1 on the leukocyte surface. This interaction supports the

	transition of leukocytes from the circulation to the site of inflammation. P-selectin is also involved in thrombus formation as it contributes to the interactions between platelets leukocytes and endothelium in the vascular wall. It acts as part of a dynamic complex in the regulation of the innate immune response and hemostasis.
Pathways	CD62P plays an important role in both the inflammatory and coagulation pathways. It is an important mediator in the leukocyte adhesion cascade influencing leukocyte tethering and rolling on activated endothelium. The interaction of P-selectin with PSGL-1 initiates the signaling pathways that lead to firm adhesion and extravasation of leukocytes. In the coagulation pathway P-selectin enhances interactions between platelets and leukocytes which support thrombus formation. Its regulation and activity are tightly linked with other proteins such as E-selectin and L-selectin in coordinating vascular and systemic inflammatory responses.
Associated diseases and disorders	Altered expression of CD62P is associated with various inflammatory conditions and cardiovascular diseases. In thrombosis increased levels of P-selectin enhance platelet aggregation and stability of the thrombus contributing to pathological clot formation. Similarly in atherosclerosis P-selectin facilitates the recruitment of monocytes to the vessel wall promoting plaque development. The protein's function relates to interactions with key inflammatory mediators and its dysregulation is often observed in conditions like chronic inflammatory diseases and acute myocardial infarction.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

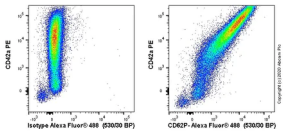
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:

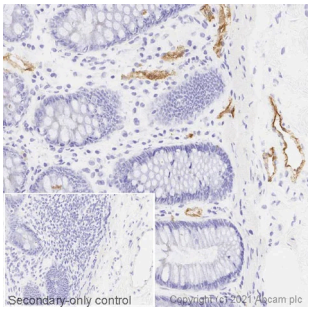
5 product images



Flow Cytometry - Anti-P-Selectin (CD62P) antibody [AK-6] (ab6632)

P-Selectin (CD62P) Flow Cytometry staining using mouse Anti-P-Selectin (CD62P) antibody

Flow cytometry staining of human whole blood with ab6632 (right) or mouse IgG1κ (ab170190) isotype (left). Red blood cells of 200 µl blood were lysed, then cells were incubated for 30 min on ice in 1x PBS containing 10 µg/ml human IgG and 10% normal goat serum to block Fc receptors and non-specific protein-protein interaction followed by the antibody (ab6632) or mouse IgG1κ (ab170190) isotype ($1x10^6$ in 100 µl; at 0.2 µg/ml) for 30 min on ice. The secondary antibody Goat anti-mouse IgG H&L (Alexa Fluor®488, pre-adsorbed) (ab150117) was used at 1/2000 dilution for 30 min on ice. The cells were simultaneously stained with CD42a PE. Acquisition of >30000 events were collected using a 50 mW Blue laser (488nm) and 530/30 bandpass filter. Events were gated on alive neutrophils.

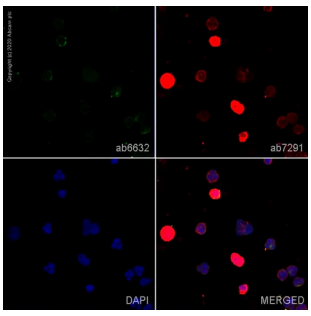


Immunohistochemistry (Frozen sections) - Anti-P-Selectin (CD62P) antibody [AK-6] (ab6632)

P-Selectin (CD62P) Immunohistochemistry (Frozen sections) staining using mouse Anti-P-Selectin (CD62P) antibody

IHC image of CD62P staining in a section of frozen normal human colon* performed on a Leica BOND™ system using the standard protocol. The section was fixed in 10% paraformaldehyde (10 min) prior to staining. The section was incubated with ab6632, 0.01ug/ml for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX. The inset secondary-only control image is taken from an identical assay without primary antibody. For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.

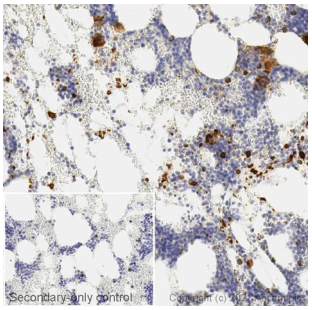
*Tissue obtained from the Human Research Tissue Bank, supported by the NIHR Cambridge Biomedical Research Centre



Immunocytochemistry/ Immunofluorescence - Anti-P-Selectin (CD62P) antibody [AK-6] (ab6632)

P-Selectin (CD62P) Immunocytochemistry/ Immunofluorescence staining using mouse Anti-P-Selectin (CD62P) antibody

ab6632 staining CD62P in Human whole blood. The cells were fixed with 4% paraformaldehyde (10 min), permeabilized with 0.1% PBS-Tween for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1%PBS-Tween for 1h. The cells were then incubated overnight at 4°C with ab6632 at 10µg/ml and ab6046, Rabbit polyclonal to beta Tubulin - Loading Control. Cells were then incubated with ab150117, Goat polyclonal Secondary Antibody to Mouse IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 dilution (shown in green) and ab150080, Goat polyclonal Secondary Antibody to Rabbit IgG - H&L (Alexa Fluor® 594) at 1/1000 dilution (shown in pseudocolour red). Nuclear DNA was labelled with DAPI (shown in blue).



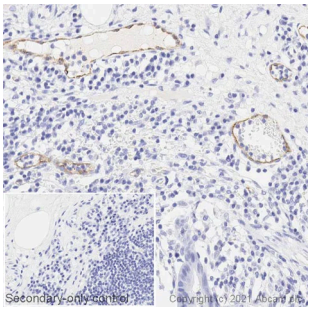
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-P-Selectin (CD62P) antibody [AK-6] (ab6632)

P-Selectin (CD62P) Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using mouse Anti-P-Selectin (CD62P) antibody

IHC image of CD62P staining in a section of formalin-fixed paraffin-embedded normal human bone marrow* performed on a Leica BOND™ system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20mins. The section was then incubated with ab6632, 10ug/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX. The inset secondary-only control image is taken from an identical assay without primary antibody. For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.

*Tissue obtained from the Human Research Tissue Bank, supported by the NIHR Cambridge Biomedical Research Centre

---



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-P-Selectin (CD62P) antibody [AK-6] (ab6632)

P-Selectin (CD62P) Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using mouse Anti-P-Selectin (CD62P) antibody

IHC image of CD62P staining in a section of formalin-fixed paraffin-embedded normal human colon* performed on a Leica BOND™ system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20mins. The section was then incubated with ab6632, 10ug/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX. The inset secondary-only control image is taken from an identical assay without primary antibody. For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.

*Tissue obtained from the Human Research Tissue Bank, supported by the NIHR Cambridge Biomedical Research Centre

---

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.