

# Product Datasheet

## PSGL-1/CD162 Antibody (HECA-452) - BSA Free NB100-78039

Unit Size: 0.1 ml

Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.

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Updated 9/9/2025 v.20.1

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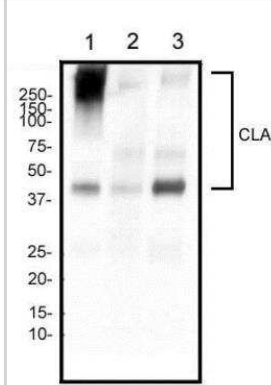


**NB100-78039****PSGL-1/CD162 Antibody (HECA-452) - BSA Free**

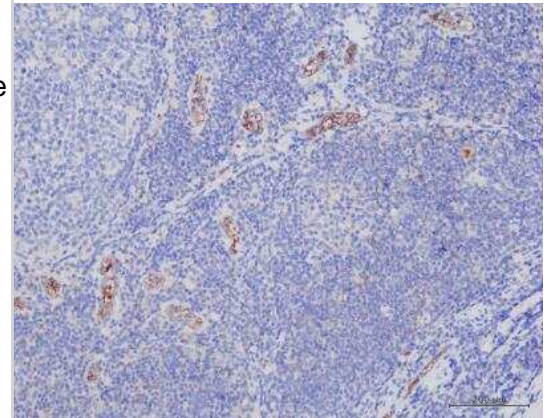
<b>Product Information</b>	
<b>Unit Size</b>	0.1 ml
<b>Concentration</b>	1.0 mg/ml
<b>Storage</b>	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
<b>Clonality</b>	Monoclonal
<b>Clone</b>	HECA-452
<b>Preservative</b>	0.02% Sodium Azide
<b>Isotype</b>	IgM Kappa
<b>Purity</b>	IgM purified
<b>Buffer</b>	PBS
<b>Product Description</b>	
<b>Description</b>	Novus Biologicals Rat PSGL-1/CD162 Antibody (HECA-452) - BSA Free (NB100-78039) is a monoclonal antibody validated for use in IHC, WB, ELISA, Flow and ICC/IF. Anti-PSGL-1/CD162 Antibody: Cited in 12 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
<b>Host</b>	Rat
<b>Gene ID</b>	6404
<b>Gene Symbol</b>	SELPLG
<b>Species</b>	Human, Mouse
<b>Specificity/Sensitivity</b>	CLA antibody clone HECA-452 is known to recognize the cutaneous lymphocyte-associated antigen / CLA which is a specialized glycosylated form of P-selectin glycoprotein ligand-1/PSGL-1. Besides lymphocytes, this clone has been shown to react with normal endometrium as well as breast cancer tissues (PMID 19625313 and 22970241).
<b>Immunogen</b>	Human tonsil stroma
<b>Product Application Details</b>	
<b>Applications</b>	Western Blot, Immunohistochemistry-Paraffin, ELISA, Flow Cytometry, Flow (Cell Surface), Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen, CyTOF-ready
<b>Recommended Dilutions</b>	Western Blot 2 ug/ml, Flow Cytometry &lt; = 2 ug/10 <sup>6</sup> cells in 100 ul, ELISA, Immunohistochemistry 1:10-1:500, Immunocytochemistry/ Immunofluorescence reported in scientific literature (PMID 1693467), Immunohistochemistry-Paraffin 1:10-1:500, Immunohistochemistry-Frozen 1:10-1:500, Flow (Cell Surface), CyTOF-ready

## Images

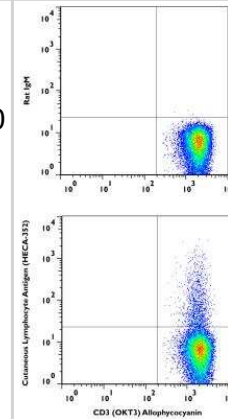
Western Blot: PSGL-1/CD162 Antibody (HECA-452) [NB100-78039] - Cutaneous Lymphocyte Antigen (CLA) Antibody (HECA-452) [NB100-78039] - Analysis of human tonsil (1), human spleen (2), and human lymph node (3) tissue using CD162 antibody at a concentration of 2 ug/ml.



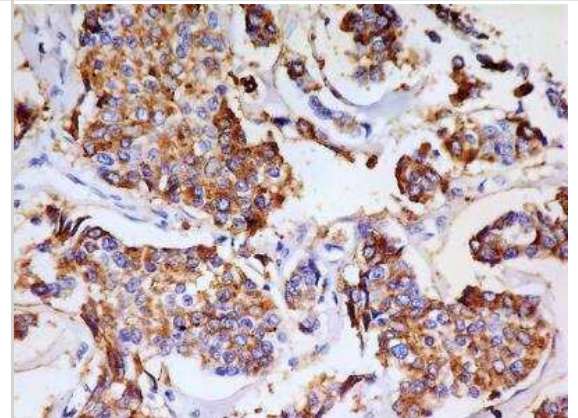
Immunohistochemistry-Paraffin: PSGL-1/CD162 Antibody (HECA-452) [NB100-78039] - Human tonsil tissue stained with PSGL-1/CD162 Antibody (HECA-452) at 5ug/mL, and Leica Refine DAB kit. IHC-P image submitted by a verified customer review.



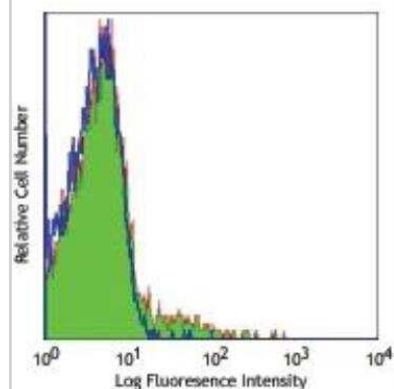
Flow (Cell Surface): PSGL-1/CD162 Antibody (HECA-452) [NB100-78039] - Cutaneous Lymphocyte Antigen (CLA) Antibody (HECA-452) [NB100-78039] - A cell surface stain was performed on CD3+ hPBMCs with Cutaneous Lymphocyte Antigen (CLA) antibody (HECA-452) NB100-78039 and a matched isotype control NBP2-31379. Cells were incubated in an antibody dilution of 1 ug/mL for 20 minutes at room temperature, followed by mouse F(ab)2 IgG (H+L) APC-conjugated secondary antibody [F0101B, R&D Systems]. A co-stain was performed using CD3 antibody NBP2-25186APC.



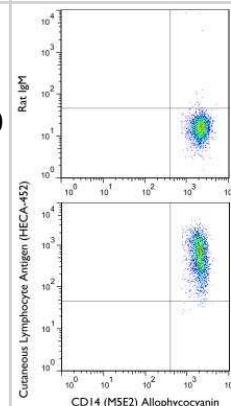
Immunohistochemistry-Paraffin: PSGL-1/CD162 Antibody (HECA-452) [NB100-78039] - Cutaneous Lymphocyte Antigen (CLA) Antibody (HECA-452) [NB100-78039] - IHC analysis of formalin-fixed paraffin-embedded tissue section of human breast adenocarcinoma using CLA antibody (clone HECA-452) at 5 ug/ml concentration. The antibody generated a membrane-cytoplasmic staining in the cancerous cells of breast adenocarcinoma. Note:- Besides lymphocytes, CLA has been shown to be present on cells of normal endometrium as well as breast cancer tissues (PMID 19625313 and 22970241).



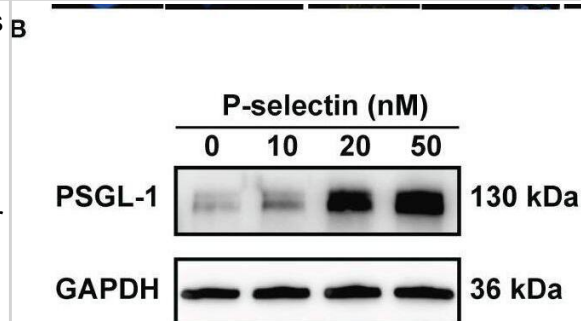
Flow Cytometry: PSGL-1/CD162 Antibody (HECA-452) [NB100-78039] - Cutaneous Lymphocyte Antigen (CLA) Antibody (HECA-452) [NB100-78039] - Human peripheral blood lymphocytes stained with purified HECA-452, followed by anti-mouse IgG FITC



Flow (Cell Surface): PSGL-1/CD162 Antibody (HECA-452) [NB100-78039] - Cutaneous Lymphocyte Antigen (CLA) Antibody (HECA-452) [NB100-78039] - A cell surface stain was performed on CD14+ hPBMCs with Cutaneous Lymphocyte Antigen (CLA) antibody (HECA-452) NB100-78039 and a matched isotype control NBP2-31379. Cells were incubated in an antibody dilution of 1 ug/mL for 20 minutes at room temperature, followed by rat-Dylight 488 conjugated secondary antibody. A co-stain was performed using CD14 antibody NB100-77758AF488.



High level of P-selectin leads to increased PSGL-1 expression and NETs formation in human neutrophils. Human peripheral blood neutrophils were isolated and treated with P-selectin recombinant protein at concentrations of 10, 20 and 50 nM. (A) Representative images of neutrophil stained with PSGL-1 (yellow) and DAPI (blue). The inset box from each group is magnified. Scale bar: 5  $\mu$ m and 20  $\mu$ m, respectively. (B) Cell lysates were collected and subjected to Western blot analysis for PSGL-1. GAPDH was used as a loading control. Data from one representative experiment are shown. (C) Relative intensities of PSGL-1 against GAPDH. (n=3, \*\*P < 0.01) (D) Representative images of neutrophils stained with MPO (red), CitH3 (Green) and DAPI (blue). The inset box from each group is magnified. Scale bar: 50  $\mu$ m and 20  $\mu$ m, respectively. The arrows indicate NETs. (E) NET-forming cells per field are quantified. (n=6, \*\*\*\*P < 0.0001) The neutrophil supernatants were assessed for cf-DNA (F) and MPO-DNA complexes (G). (n=3, \*P < 0.05, \*\*P < 0.01, \*\*\*P < 0.001). Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/37841279>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



## Publications

Li GX, Jiang XH, Zang JN et al. B-cell receptor associated protein 31 deficiency decreases the expression of adhesion molecule CD11b/CD18 and PSGL-1 in neutrophils to ameliorate acute lung injury *The International Journal of Biochemistry & Cell Biology* 2022-11-01 [PMID: 36210579] (Flow Cytometry, Immunohistochemistry, Western Blot)

Qi Xu, Ming Shi, Lu Ding, Yu Xia, Liang Luo, Xiaofang Lu, Xiaoying Zhang, David Y. B. Deng High expression of P-selectin induces neutrophil extracellular traps via the PSGL-1/Syk/Ca<sup>2+</sup>/PAD4 pathway to exacerbate acute pancreatitis *Frontiers in Immunology* 2023-09-28 [PMID: 37841279]

Shi H, Jiang C, Yao H et al. CD44 fucosylation on bone marrow-derived mesenchymal stem cells enhances homing and promotes enteric nervous system remodeling in diabetic mice *Cell & Bioscience* 2021-12-01 [PMID: 34193268] (Mouse)

Yeini E, Ofek P, Pozzi S et al. P-selectin axis plays a key role in microglia immunophenotype and glioblastoma progression *Nature communications* 2021-03-26 [PMID: 33771989] (FLOW)

Yamanaka K, Dimitroff CJ, Fuhlbrigge RC et al. Vitamins A and D are potent inhibitors of cutaneous lymphocyte-associated antigen expression. *J Allergy Clin Immunol.* 2008-01-01 [PMID: 17910894] (WB)

Picker LJ, Michie SA, Rott LS, Butcher EC. A unique phenotype of skin-associated lymphocytes in humans. Preferential expression of the HECA-452 epitope by benign and malignant T cells at cutaneous sites. *Am J Pathol.* 1990-05-01 [PMID: 1693467] (IF/IHC, WB, FLOW)

Walcheck B, Leppanen A, Cummings R et al. The monoclonal antibody CHO-131 binds to a core 2 O-glycan terminated with sialyl-Lewis x, which is a functional glycan ligand for P-selectin. *Blood.* 2002-06-01 [PMID: 12010808] (FLOW, ELISA)

Borges E, Pendl G, Eytner R et al. The binding of T cell-expressed P-selectin glycoprotein ligand-1 to E- and P-selectin is differentially regulated. *J Biol Chem.* 1997-11-01 [PMID: 9353350]

Picker LJ, Kishimoto TK, Smith CW et al. ELAM-1 is an adhesion molecule for skin-homing T cells. *Nature.* 1991-02-01 [PMID: 1705666]

Berg EL, Yoshino T, Rott LS et al. The cutaneous lymphocyte antigen is a skin lymphocyte homing receptor for the vascular lectin endothelial cell-leukocyte adhesion molecule 1. *J Exp Med.* 1991-12-01 [PMID: 1720810]

Duijvestijn AM, Horst E, Pals ST et al. High endothelial differentiation in human lymphoid and inflammatory tissues defined by monoclonal antibody HECA-452. *Am J Pathol.* 1988-01-01 [PMID: 3276207]

Kim CH, Cheong KA, Park CD, Lee AY. Therapeutic Effects of Combination Using Glucosamine Plus Tacrolimus (FK-506) on The Development of Atopic Dermatitis-Like Skin Lesions in NC/Nga Mice. *Scand J Immunol*;75(5):471-8. 2012-05-01 [PMID: 22023698] (IF/IHC, Mouse)



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### **Products Related to NB100-78039**

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NBL1-15720	SR-BI Overexpression Lysate
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HAF005	Goat anti-Rat IgG Secondary Antibody [HRP]
NB7115	Goat anti-Rat IgG (H+L) Secondary Antibody [HRP]

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### **Limitations**

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