

# Product Datasheet

## CD81 Antibody (1D6) - BSA Free NB100-65805SS

Unit Size: 0.025 ml

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

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**NB100-65805SS**

CD81 Antibody (1D6) - BSA Free

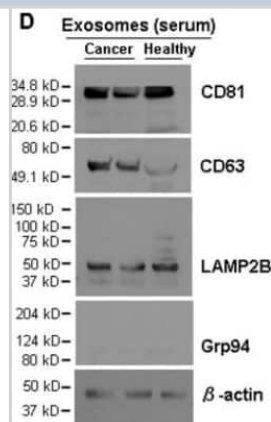
Product Information	
Unit Size	0.025 ml
Concentration	1.0 mg/ml
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Monoclonal
Clone	1D6
Preservative	0.05% Sodium Azide
Isotype	IgG1 Kappa
Purity	Protein G purified
Buffer	PBS

Product Description	
Description	Novus Biologicals Mouse CD81 Antibody (1D6) - BSA Free (NB100-65805) is a monoclonal antibody validated for use in IHC, WB, ELISA, Flow, ICC/IF, Simple Western and IP. Anti-CD81 Antibody: Cited in 23 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Mouse
Gene ID	975
Gene Symbol	CD81
Species	Human, Mouse, Goat, Primate, Sheep
Reactivity Notes	Mouse reactivity reported in scientific literature (Ji et al). Canine reactivity reported from a verified customer review. Primate reactivity reported in scientific literature (PMID:33077711).
Immunogen	Aggregated OCI-Ly8 human B cell line

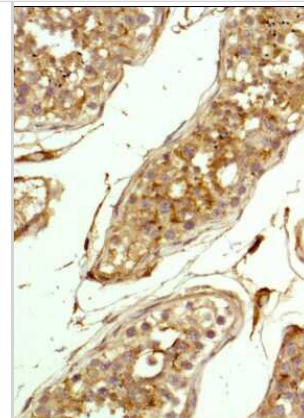
Product Application Details	
Applications	Western Blot, Simple Western, Immunohistochemistry-Paraffin, Dot Blot, ELISA, Flow Cytometry, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunoprecipitation, CyTOF-ready
Recommended Dilutions	Western Blot 1 - 2 ug/mL, Simple Western, Flow Cytometry 0.2 - 1 ug per million cells, ELISA, Immunohistochemistry 1:100, Immunocytochemistry/ Immunofluorescence 1:10 - 1:100, Immunoprecipitation 1:10 - 1:500, Immunohistochemistry-Paraffin 1:100, Dot Blot, CyTOF-ready

**Images**

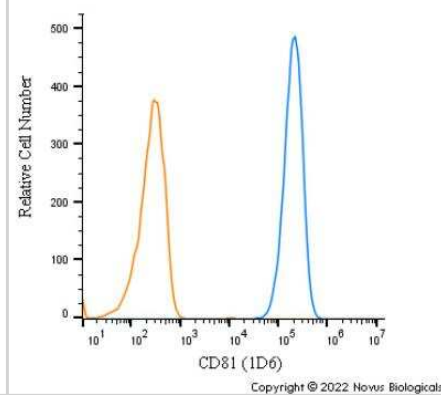
Western Blot: CD81 Antibody (1D6) [NB100-65805] - Isolation and characterization of exosomes from cell culture supernatant and human blood. Immunoblot of exosomal markers CD81 (~30 kDa), CD63 (~55 kDa), and LAMP2B (~50 kDa) in exosomes (5 ug lysates) isolated from the serum of breast cancer patients and healthy control. Grp94 (~100 kDa) and beta-actin (~42 kDa) serve as a negative control and a loading control, respectively. Image collected and cropped by CiteAb from the following publication (<https://www.nature.com/articles/srep36502>), licensed under a CC-BY license.



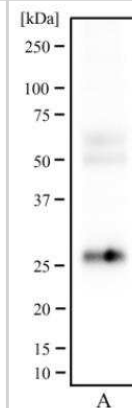
Immunohistochemistry-Paraffin: CD81 Antibody (1D6) [NB100-65805] - Staining of TAPA1 in human testis using DAB with hematoxylin counterstain.



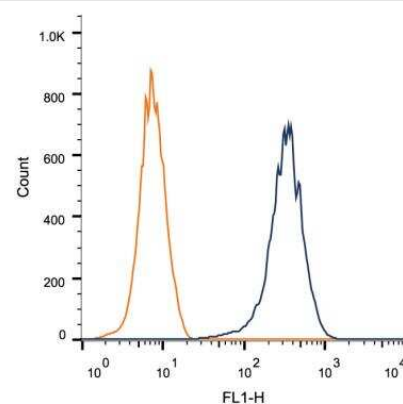
Flow Cytometry: CD81 Antibody (1D6) - BSA Free [NB100-65805] - A surface stain was performed on Jurkat cells with CD81 Antibody (1D6) NB100-65805 (blue) and a matched isotype control MAB002 (orange). Cells were incubated in an antibody dilution of 1 ug/mL for 30 minutes at room temperature, followed by Mouse IgG (H+L) Cross-Adsorbed Secondary Antibody, Dylight 550 (84540, Thermo Fisher).



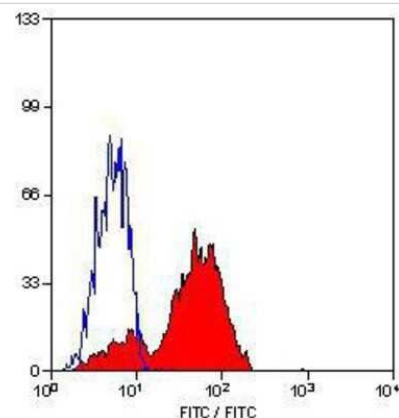
Western Blot: CD81 Antibody (1D6) [NB100-65805] - Analysis of human testis tissue (A) using CD81 antibody at a concentration of 2 ug/mL.



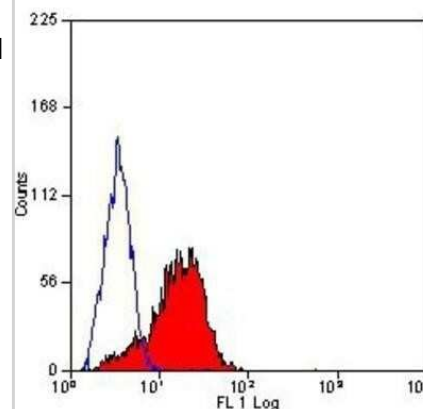
Flow Cytometry: CD81 Antibody (1D6) [NB100-65805] - Surface flow cytometric staining of  $1 \times 10^6$  PBMC cells using CD81 antibody (dark blue). Isotype control shown in orange. An antibody concentration of 1 ug/1 x 10<sup>6</sup> cells was used.



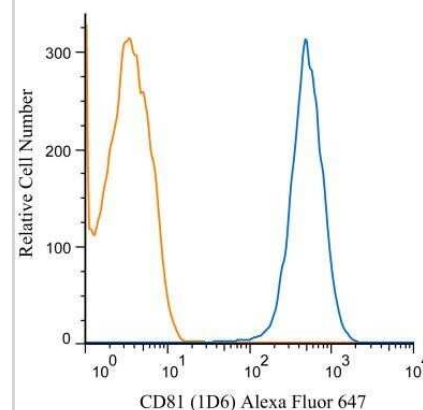
Flow Cytometry: CD81 Antibody (1D6) [NB100-65805] - Staining of human peripheral blood lymphocytes.



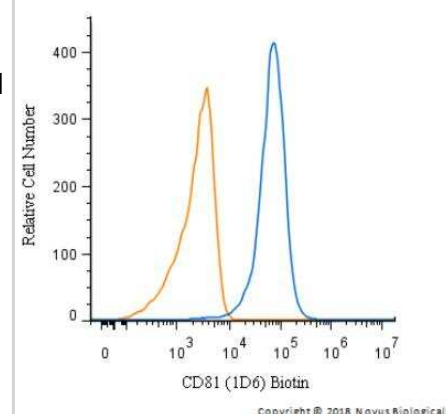
Flow Cytometry: CD81 Antibody (1D6) [NB100-65805] - Analysis using the FITC conjugate of NB100-65805. Staining of human peripheral blood lymphocytes.



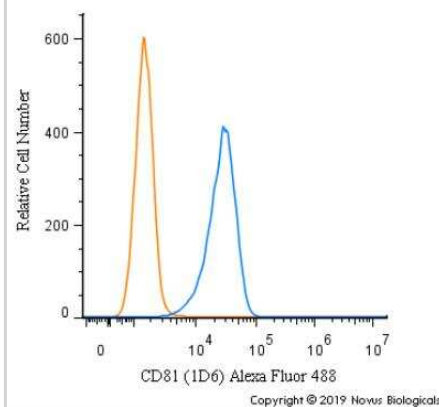
Flow Cytometry: CD81 Antibody (1D6) [NB100-65805] - A surface stain was performed on Jurkat cells with CD81 (1D6) antibody NB100-65805AF647(blue) and a matched isotype control NBP2-27287AF647 (orange). Cells were incubated in an antibody dilution of 2 ug/mL for 20 minutes at room temperature. Both antibodies were conjugated to Alexa Fluor 647.



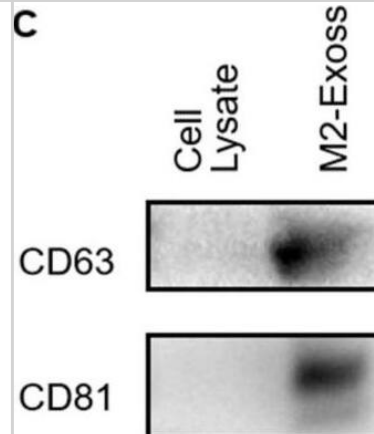
Flow Cytometry: CD81 Antibody (1D6) [NB100-65805] - A surface stain was performed on Jurkat Cells with CD81 Antibody (1D6) NB100-65805B and a matched isotype control. Both antibodies were conjugated to biotin. Cells were incubated in an antibody dilution of 1 ug/mL for 20 minutes at room temperature, followed by Streptavidin - R-Phycoerythrin Protein (2012-1000, Novus Biologicals).



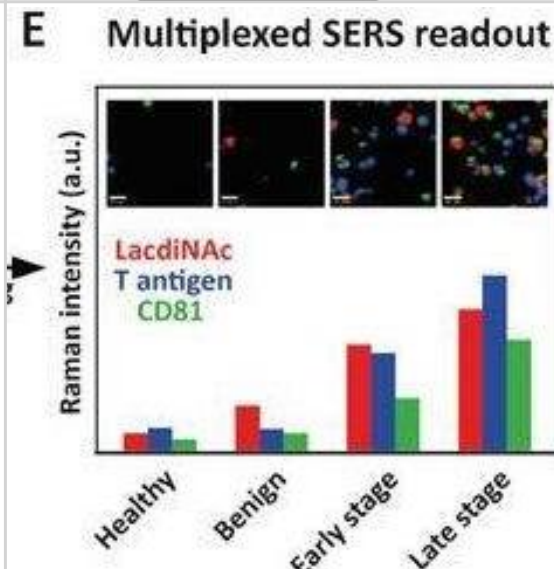
Flow Cytometry: CD81 Antibody (1D6) [NB100-65805] - A surface stain was performed on Jurkat cells with CD81 Antibody [1D6] NB100-65805AF488 (blue) and a matched isotype control (orange). Cells were incubated in an antibody dilution of 5 ug/mL for 20 minutes at room temperature. Both antibodies were conjugated to Alexa Fluor 488.



Western Blot: CD81 Antibody (1D6) - BSA Free [NB100-65805] - Characterization & internalization of M2-Exos. (A) TEM image of M2-Exos. Scale bar: 200 nm. (B) DLS measurement of M2-Exos size. (C) Western blotting assay of exosomal markers in THP-1-M2 cellular lysate & M2-Exos preparation. (D,F) Fluorescence images of 786-O & ACHN cells treated with or without PKH67-labeled M2-Exos (green). Scale bar: 50  $\mu$ m. (E,G) Three-dimensional confocal reconstruction of 786-O & ACHN cells treated with PKH67-labeled M2-Exos (green). (H) Fluorescence staining analyzing the internalization of M2-Exos by 786-O cells over 12 h. Scale bar: 10  $\mu$ m. CT: control. Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/35328425>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Principle of EV-GLYPH assay for early-stage NSCLC identification. A) Glycan signatures on sEVs derived from patients with benign and malignant lung diseases. B) CT and PET images of benign and malignant lung nodules. C) Working scheme of EV-GLYPH assay. SEC-purified sEVs from plasma are captured by anti-MUC1 antibody immobilized on an electrode and subsequently labeled with SERS nanotags against LacdiNAc, T antigen, and CD81. D) A nanomixing fluid flow is generated on the electrode surface by the applied ac-EHD field. E) With in situ SERS mapping, the average Raman intensities and false-color SERS spectral images (insets) are established based on the characteristic Raman signals of three SERS nanotags (WFA-MBA, 1075  $\text{cm}^{-1}$ , red; PNA-TFMBA, 1375  $\text{cm}^{-1}$ , blue; anti-CD81-DTNB, 1335  $\text{cm}^{-1}$ , green), representing the expression of LacdiNAc, T antigen, and CD81, respectively. Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/38885350>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



## Publications

Martínez, LE;Lensing, S;Chang, D;Magpantay, LI;Guo, Y;Mitsuyasu, R;Ambinder, RF;Sparano, JA;Martínez-Maza, O;Epeldegui, M; CD20-bearing extracellular vesicles are associated with prognostic biomarkers of patients with AIDS-NHL Scientific reports 2025-07-12 [PMID: 40646161]

Nik Mohamed Kamal NNS, Awang RAR, Mohamad S, Shahidan WNS. Plasma- and Saliva Exosome Profile Reveals a Distinct MicroRNA Signature in Chronic Periodontitis Frontiers in Physiology 2020-11-30 [PMID: 33329037] (ELISA, Western Blot, Human)

Seungeun Yeo, Jaemyung Jang, Hyun Jin Jung, Hyeyoung Lee, Youngshik Choe Primary cilia-mediated regulation of microglial secretion in Alzheimer's disease Frontiers in Molecular Biosciences 2023-10-23 [PMID: 37942288]

Quan Zhou, Xueming Niu, Zhen Zhang, Kenneth O'Byrne, Arutha Kulasinghe, David Fielding, Andreas Möller, Alain Wuethrich, Richard J Lobb, Matt Trau Glycan Profiling in Small Extracellular Vesicles with a SERS Microfluidic Biosensor Identifies Early Malignant Development in Lung Cancer. Advanced science (Weinheim, Baden-Wurttemberg, Germany) 2024-06-17 [PMID: 38885350]

Mut M, Adiguzel Z, Cakir-Aktas C et al. Extracellular-Vesicle-Based Cancer Panels Diagnose Glioblastomas with High Sensitivity and Specificity Cancers 2023-07-26 [PMID: 37568598] (WB, Human)

Craddock V, Mahajan A, Spikes L et al. Persistent circulation of soluble and extracellular vesicle-linked Spike protein in individuals with postacute sequelae of COVID-19 Journal of medical virology 2023-02-01 [PMID: 36756925]

Kim S, Lee K, Choi YS et al. Mitochondrial double-stranded RNAs govern the stress response in chondrocytes to promote osteoarthritis development Cell reports 2022-08-09 [PMID: 35947956] (WB)

Details:

Supplementary Figure S5.

Ono, K;Niwa, M;Suzuki, H;Kobayashi, NB;Yoshida, T;Sawada, M; Signal Sequence-Dependent Orientation of Signal Peptide Fragments to Exosomes International journal of molecular sciences [PMID: 35328557] (WB)

Rudy MJ, Coughlan C, Hixon AM et al. Density Analysis of Enterovirus D68 Shows Viral Particles Can Associate with Exosomes Microbiology spectrum 2022-02-23 [PMID: 35170992] (IP, Human)

Nagao K, Maeda K, Hosomi K et al. Sialyl-Tn antigen facilitates extracellular vesicle-mediated transfer of FAK and enhances motility of recipient cells Journal of biochemistry 2022-02-01 [PMID: 35106570]

Zhang Z, Hu J, Ishihara M et al. The miRNA-21-5p Payload in Exosomes from M2 Macrophages Drives Tumor Cell Aggression via PTEN/Akt Signaling in Renal Cell Carcinoma International journal of molecular sciences 2022-03-10 [PMID: 35328425] (WB, Human)

Kolka CM, Webster J, Lepletier A et al. C5b-9 Membrane Attack Complex Formation and Extracellular Vesicle Shedding in Barrett's Esophagus and Esophageal Adenocarcinoma Frontiers in immunology 2022-03-08 [PMID: 35345676] (IA, Human)

More publications at <http://www.novusbio.com/NB100-65805>



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