

# Product Datasheet

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

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 10/23/2024 v.20.1

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**NB100-65805**

CD81 Antibody (1D6) - BSA Free

**Product Information**

<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>	1D6
<b>Preservative</b>	0.05% Sodium Azide
<b>Isotype</b>	IgG1 Kappa
<b>Purity</b>	Protein G purified
<b>Buffer</b>	PBS (pH 7.4)

**Product Description**

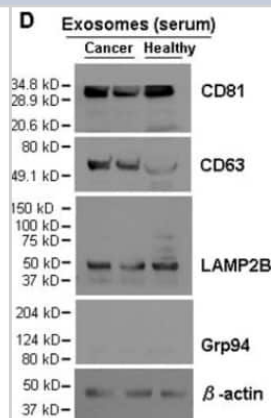
<b>Host</b>	Mouse
<b>Gene ID</b>	975
<b>Gene Symbol</b>	CD81
<b>Species</b>	Human, Mouse, Goat, Primate, Sheep
<b>Reactivity Notes</b>	Mouse reactivity reported in scientific literature (Ji et al). Canine reactivity reported from a verified customer review. Primate reactivity reported in scientific literature (PMID:33077711).
<b>Immunogen</b>	Aggregated OCI-Ly8 human B cell line

**Product Application Details**

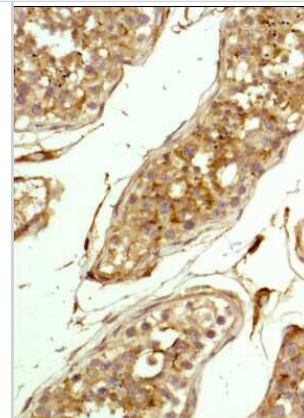
<b>Applications</b>	Western Blot, Dot Blot, ELISA, Flow Cytometry, Immunocytochemistry/Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin, Immunoprecipitation, CyTOF-ready
<b>Recommended Dilutions</b>	Western Blot 1 - 2 ug/mL, Flow Cytometry 0.2 - 1 ug per million cells, ELISA, Immunohistochemistry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

**Images**

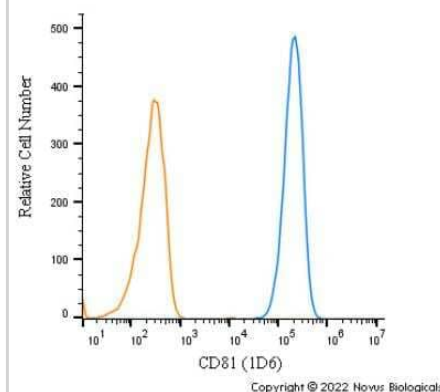
Western Blot: CD81 Antibody (1D6) [NB100-65805] - Isolation and characterization of exosomes from cell culture supernatant and human blood. Immunoblot of exosomal markers CD81 (~30 kDa), CD63 (~55 kDa), and LAMP2B (~50 kDa) in exosomes (5 ug lysates) isolated from the serum of breast cancer patients 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.



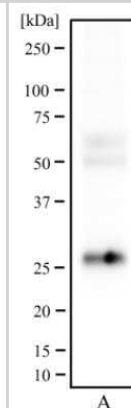
**Immunohistochemistry-Paraffin: CD81 Antibody (1D6) [NB100-65805] - Staining of TAPA1 in human testis using DAB with hematoxylin counterstain.**



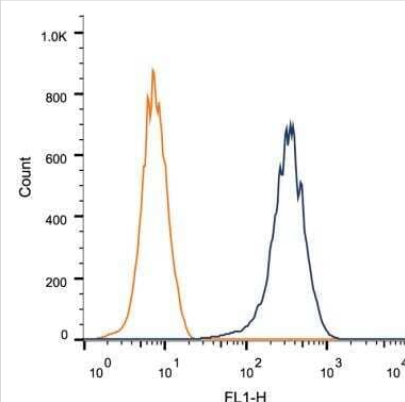
**Flow Cytometry: CD81 Antibody (1D6) - BSA Free [NB100-65805] - A surface stain was performed on Jurkat cells with CD81 Antibody (1D6) NB100-65805 (blue) and a matched isotype control MAB002 (orange). Cells were incubated in an antibody dilution of 1 ug/mL for 30 minutes at room temperature, followed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



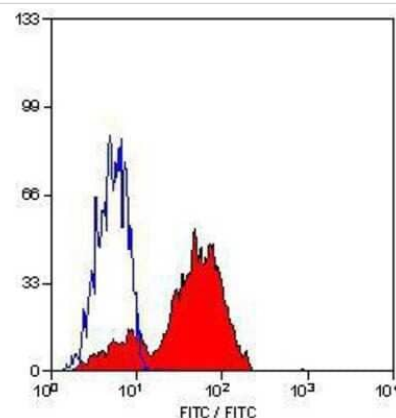
**Western Blot: CD81 Antibody (1D6) [NB100-65805] - Analysis of human testis tissue (A) using CD81 antibody at a concentration of 2 ug/mL.**



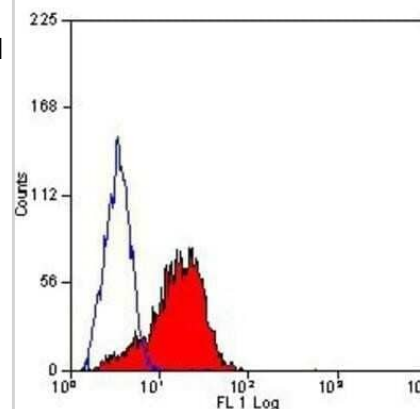
**Flow Cytometry: CD81 Antibody (1D6) [NB100-65805] - Surface flow cytometric staining of 1 x 10<sup>6</sup> PBMC cells using CD81 antibody (dark blue). Isotype control shown in orange. An antibody concentration of 1 ug/1 x 10<sup>6</sup> cells was used.**



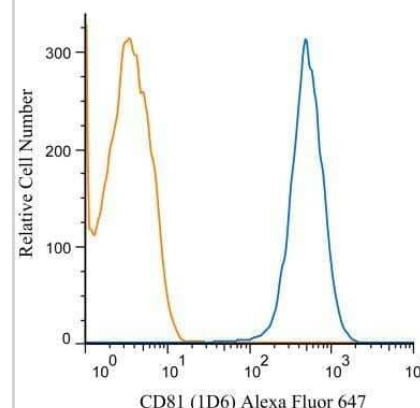
Flow Cytometry: CD81 Antibody (1D6) [NB100-65805] - Staining of human peripheral blood lymphocytes.



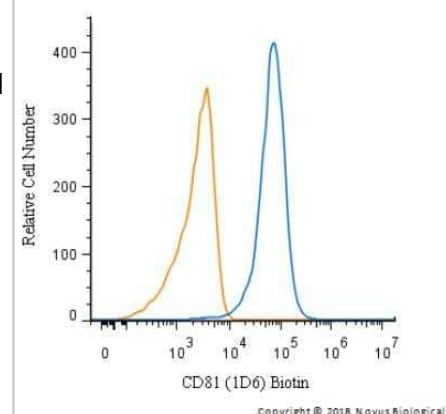
Flow Cytometry: CD81 Antibody (1D6) [NB100-65805] - Analysis using the FITC conjugate of NB100-65805. Staining of human peripheral blood lymphocytes.



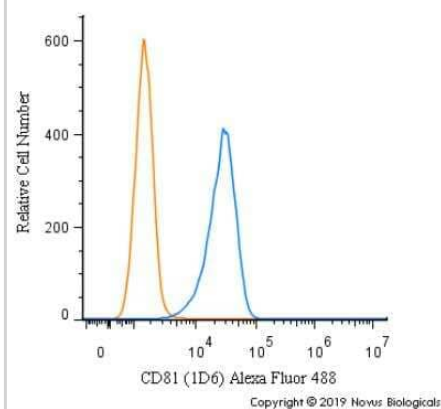
Flow Cytometry: CD81 Antibody (1D6) [NB100-65805] - A surface stain was performed on Jurkat cells with CD81 (1D6) antibody NB100-65805AF647(blue) and a matched isotype control NBP2-27287AF647 (orange). Cells were incubated in an antibody dilution of 2 ug/mL for 20 minutes at room temperature. Both antibodies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



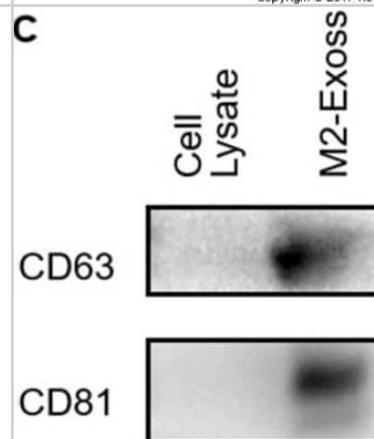
Flow Cytometry: CD81 Antibody (1D6) [NB100-65805] - A surface stain was performed on Jurkat Cells with CD81 Antibody (1D6) NB100-65805B and a matched isotype control. Both antibodies were conjugated to biotin. Cells were incubated in an antibody dilution of 1 ug/mL for 20 minutes at room temperature,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



## Publications

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]

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] (Simple Western)

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)

Bellio MA, Young KC, Milberg J et al. Amniotic fluid-derived extracellular vesicles: characterization and therapeutic efficacy in an experimental model of bronchopulmonary dysplasia *Cytotherapy* 2021-09-17 [PMID: 34538718] (ICC/IF, Human)

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





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### **Products Related to NB100-65805**

NBL1-08973	CD81 Overexpression Lysate
HAF007	Goat anti-Mouse IgG Secondary Antibody [HRP]
NB720-B	Rabbit anti-Mouse IgG (H+L) Secondary Antibody [Biotin]
NBP1-43319-0.5mg	Mouse IgG1 Kappa Isotype Control (P3.6.2.8.1)

### **Limitations**

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

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