

# Product Datasheet

## CD44 Antibody (8E2F3) - BSA Free NBP1-47386SS

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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**NBP1-47386SS**

CD44 Antibody (8E2F3) - BSA Free

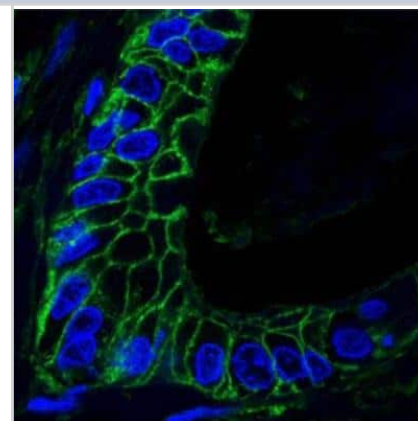
| Product Information     |  |
|-------------------------|--|
| Unit Size               | 0.025 ml   |
| Concentration           | 1.0 mg/ml  |
| Storage                 | Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles. |
| Clonality               | Monoclonal   |
| Clone                   | 8E2F3  |
| Preservative            | 0.02% Sodium Azide   |
| Isotype                 | IgG1   |
| Purity                  | Ammonium sulfate precipitation   |
| Buffer                  | PBS  |
| Target Molecular Weight | 82 kDa   |

| Product Description |   |
|---------------------|---|
| Host                | Mouse   |
| Gene ID             | 960   |
| Gene Symbol         | CD44  |
| Species             | Human, Mouse, Rabbit (Negative)   |
| Reactivity Notes    | Not reactive to rabbit per customer review.   |
| Marker              | Cell Membrane Marker  |
| Immunogen           | Purified recombinant fragment of human CD44 (628-699) expressed in E. coli. [Uniprot: P16070] |

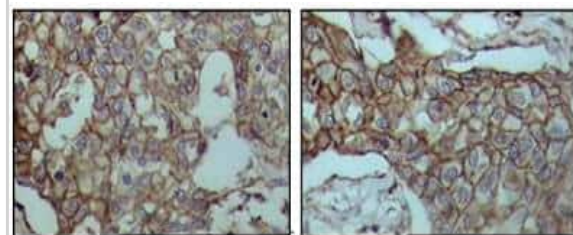
| Product Application Details |   |
|-----------------------------|---|
| Applications                | Western Blot, ELISA, Flow Cytometry, Flow (Intracellular), Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin, Immunoprecipitation  |
| Recommended Dilutions       | Western Blot, Flow Cytometry 1:200-1:400, ELISA 1:10000, Immunohistochemistry 1:200-1:1000, Immunocytochemistry/ Immunofluorescence 1:200-1:1000, Immunoprecipitation, Immunohistochemistry-Paraffin 1:200-1:1000, Flow (Intracellular) |

**Images**

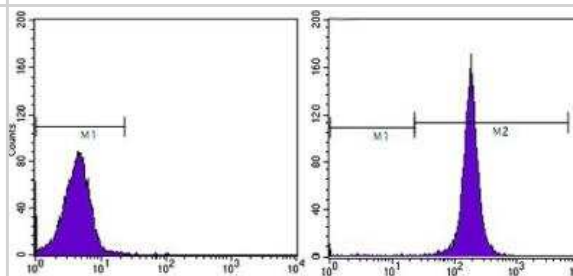
Immunocytochemistry/Immunofluorescence: CD44 Antibody (8E2F3) [NBP1-47386] - Analysis of paraffin-embedded human lung cancer tissues using anti-CD44 mAb (green), showing membrane localization. DRAQ5 fluorescent DNA dye (blue).



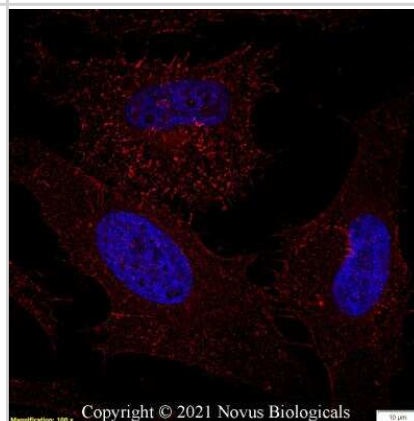
**Immunohistochemistry-Paraffin: CD44 Antibody (8E2F3) [NBP1-47386]** - Analysis of FFPE human breast carcinoma tissues using CD44 antibody (8E2F3). The signal was developed using DAB based detection and the sections were processed for counterstaining with hematoxylin. The antibody generated mainly a membrane staining representative of CD44 protein.



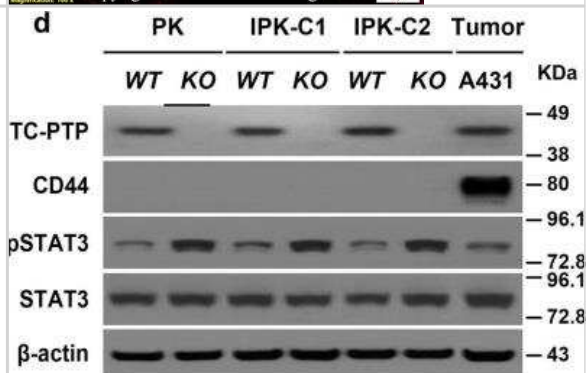
**Flow Cytometry: CD44 Antibody (8E2F3) [NBP1-47386]** - Analysis of HeLa cells using anti-CD44 mAb (right) and negative control (left).



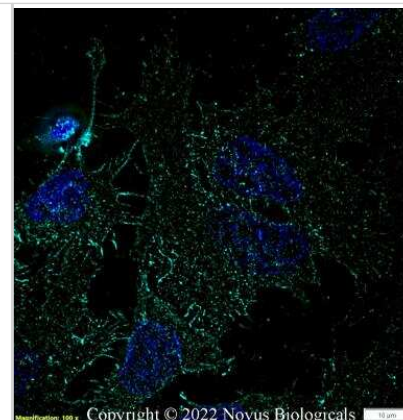
**Immunocytochemistry/Immunofluorescence: CD44 Antibody (8E2F3) [NBP1-47386]** - HeLa cells were fixed in 4% paraformaldehyde for 10 minutes and permeabilized in 0.05% Triton X-100 in PBS for 5 minutes. The cells were incubated with anti-CD44 Antibody [8E2F3] conjugated to DyLight 550 (NBP1-47386R) at 5 ug/ml for 1 hour at room temperature. Nuclei were counterstained with DAPI (Blue). Cells were imaged using a 100X objective and digitally deconvolved.



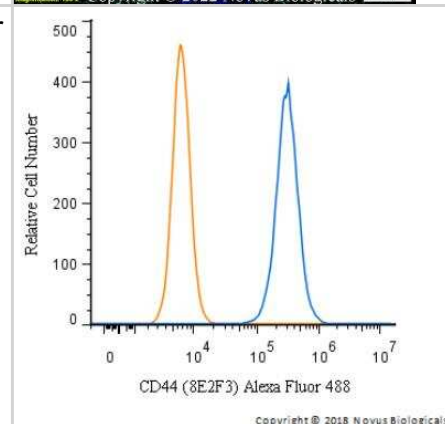
**Western Blot: CD44 Antibody (8E2F3) - BSA Free [NBP1-47386]** - Generation and characterization of immortalized primary keratinocytes (IPKs) from K14Cre.Ptpn2w/w and K14Cre.Ptpn2fl/fl mice. Western blot analysis of pSTAT3, STAT3, and CD44 (NBP1-47386) in primary keratinocytes and IPKs from both genotypes. The A431 cells were used as positive controls. Image collected and cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/29955047/>) licensed under a CC-BY license.



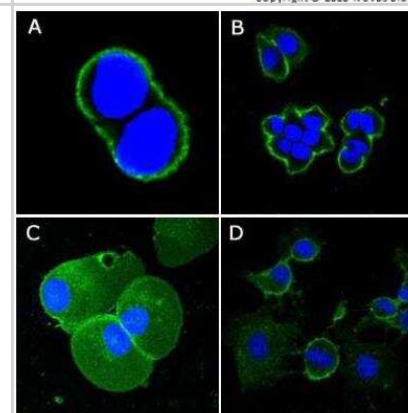
**Immunocytochemistry/Immunofluorescence: CD44 Antibody (8E2F3) [NBP1-47386]** - HeLa cells were fixed in 4% paraformaldehyde for 10 minutes and permeabilized in 0.05% Triton X-100 in PBS for 5 minutes. The cells were incubated with CD44 Antibody [8E2F3] conjugated to Alexa Fluor 647 (NBP1-47386AF647) at 5 ug/ml for 1 hour at room temperature. Nuclei were counterstained with DAPI (Blue). Cells were imaged using a 100X objective and digitally deconvolved.



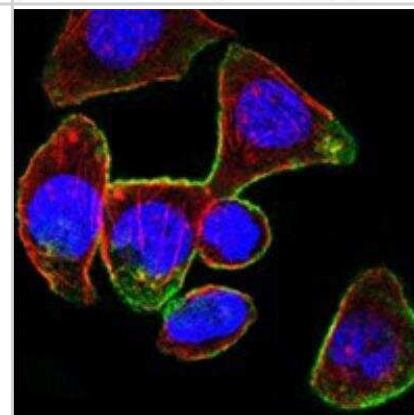
**Flow Cytometry: CD44 Antibody (8E2F3) [NBP1-47386]** - An intracellular stain was performed on HeLa cells with NBP1-47386AF488 (blue) and a matched isotype control (orange). Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 5 ug/mL for 30 minutes at room temperature. Both antibodies were conjugated to Alexa Fluor 488.



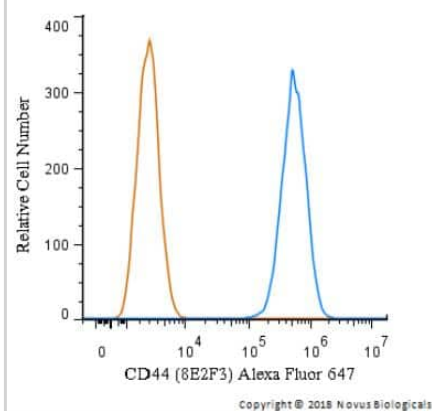
**Immunocytochemistry/Immunofluorescence: CD44 Antibody (8E2F3) [NBP1-47386]** - Analysis of methanol-fixed A431 (A), HeLa (B), PANC-1 (C) and EC (D) cells using anti-CD44 mAb (green), showing membrane localization. DRAQ5 fluorescent DNA dye (blue).



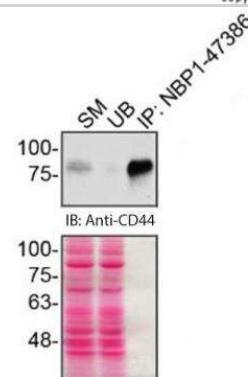
**Immunocytochemistry/Immunofluorescence: CD44 Antibody (8E2F3) [NBP1-47386]** - Analysis of PANC-1 cells using anti-CD44 mAb (green). Actin filaments have been labeled with DY-554 phalloidin (red). DRAQ5 fluorescent DNA dye (blue).



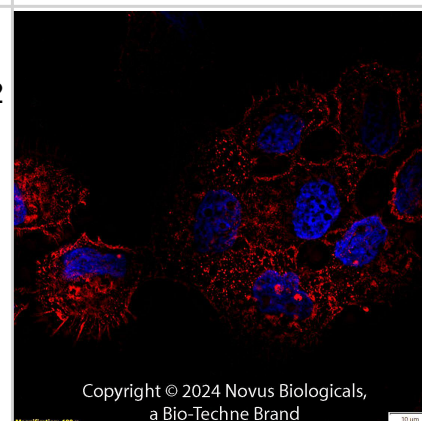
**Flow (Intracellular): CD44 Antibody (8E2F3) [NBP1-47386]** - An intracellular stain was performed on HeLa cells with NBP1-47386AF647 (blue) and a matched isotype control (orange). Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 2.5  $\mu$ g/mL for 30 minutes at room temperature. Both antibodies were conjugated to Alexa Fluor 647.



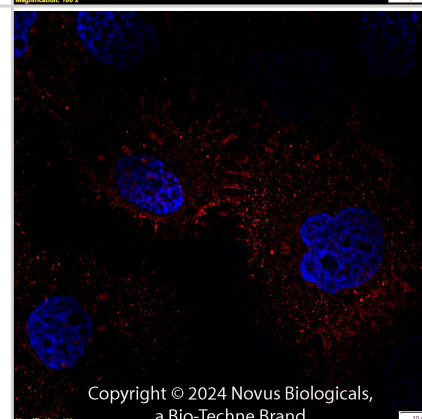
**Immunoprecipitation: CD44 Antibody (8E2F3) - BSA Free [NBP1-47386]** - HAP1 lysates were prepared and immunoprecipitation was performed using 1.0  $\mu$ g of the CD44 Antibody (NBP1-47386) pre-coupled to either protein G or protein A Sepharose beads. Ability of the antibodies to capture CD44 antigen was first assessed by comparing the level of CD44 antigen from the starting material (SM) to its level remaining in the unbound fractions (UB). Anti-CD44 antigen at 1/2000 was used for each immunoblot. Immunoprecipitate for CD44 Antibody (NBP1-47386) that showed depleted CD44 antigen in the UB can be seen. Image, protocol and testing courtesy of YCharOS Inc. (ycharos.com).



CD44 (8E2F3) was detected in immersion fixed A431 human skin carcinoma cell line using Mouse anti- CD44 (8E2F3) Protein-G purified Monoclonal Antibody conjugated to Biotin (Catalog # NBP1-47386B) at 2  $\mu$ g/mL overnight at 4C. Cells were stained using Streptavidin conjugated to DyLight 550 (red) and counterstained with DAPI (blue). Cells were imaged using a 100X objective and digitally deconvolved.

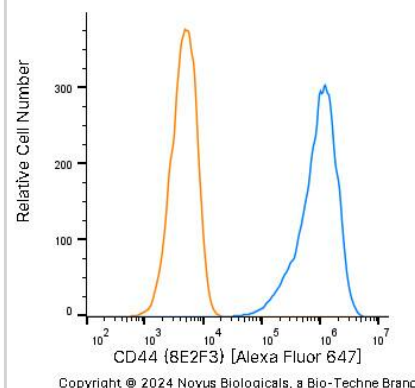


CD44 (8E2F3) was detected in immersion fixed A431 human skin carcinoma cell line using Mouse anti-CD44 (8E2F3) Protein-G purified Monoclonal Antibody conjugated to DyLight 550 (Catalog # NBP1-47386R) (red) at 5  $\mu$ g/mL overnight at 4C. Cells were counterstained with DAPI (blue). Cells were imaged using a 100X objective and digitally deconvolved.

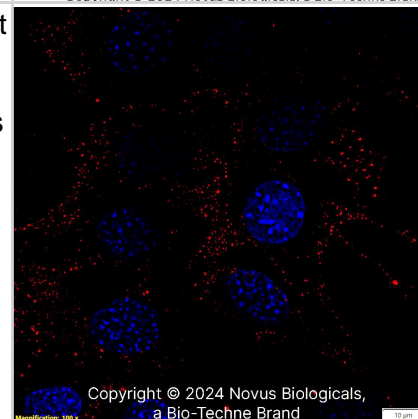




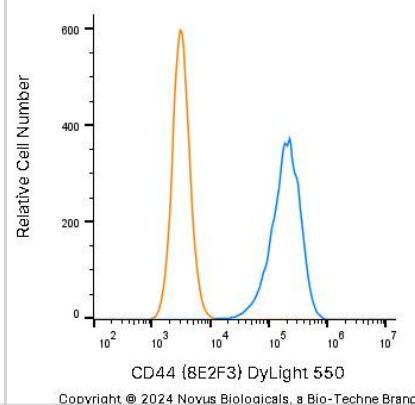
U-251 MG human glioblastoma cell line was stained with Mouse anti-CD44 (8E2F3) Protein-G purified Monoclonal Antibody conjugated to Alexa Fluor® 647 (Catalog # NBP1-47386AF647, blue histogram) or matched control antibody (orange histogram).



CD44 (8E2F3) was detected in immersion fixed NIH3T3 Mouse fibroblast cell line using Mouse anti- CD44 (8E2F3) Protein-G purified Monoclonal Antibody conjugated to DyLight 550 (Catalog # NBP1-47386R) (red) at 2 µg/mL overnight at 4°C. Cells were counterstained with DAPI (blue). Cells were imaged using a 100X objective and digitally deconvolved.



An intracellular stain was performed on A431 human skin carcinoma cell line using Mouse anti-CD44 (8E2F3) Protein-G purified Monoclonal Antibody conjugated to DyLight 550 (Catalog # NBP1-47386R, blue histogram) or matched control antibody (orange histogram) at 2.5 µg/mL for 30 minutes at RT.



## Publications

Ning Li, Qin Zhu, Yuhua Tian, Kyung Jin Ahn, Xin Wang, Zvi Cramer, Justine Jou, Ian W. Folkert, Pengfei Yu, Stephanie Adams-Tzivelekidis, Priyanka Sehgal, Najia N. Mahmoud, Cary B. Aarons, Robert E. Roses, Andrei Thomas-Tikhonenko, Emma E. Furth, Ben Z. Stanger, Anil Rustgi, Malay Haldar, Bryson W. Katona, Kai Tan, Christopher J. Lengner Mapping and modeling human colorectal carcinoma interactions with the tumor microenvironment Nature Communications 2023-11-30 [PMID: 38036590]

Asare O The Role of TC-PTP-Mediated Suppression of Autophagy During Skin Carcinogenesis Thesis 2023-01-01

Salman S, Meyers DJ, Wicks EE Et al. HIF inhibitor 32-134D eradicates murine hepatocellular carcinoma in combination with anti-PD1 therapy J Clin Invest 2022-05-02 [PMID: 35499076] (FLOW, Mouse)

### Details:

Citation using the Alexa Fluor 488 version of this antibody.

Lubanska D, Alrashed S, Mason GT et al. Impairing proliferation of glioblastoma multiforme with CD44+ selective conjugated polymer nanoparticles Scientific reports 2022-07-15 [PMID: 35840697] (PAGE)

Byun Js, Oh M, Lee S Et Al. The transcription factor PITX1 drives astrocyte differentiation by regulating the SOX9 gene J. Biol. Chem. 2020-08-05 [PMID: 32759168] (IF/IHC, Rat)

Saxena N, Bhardwaj G, Jadhav S, et al. Pre-metastatic niche drives breast cancer invasion by modulating MSC homing and CAF differentiation bioRxiv 2021-01-15 (ICC/IF, Human)

Li H, Chaitankar V, Zhu J et al. Olfactomedin 4 mediation of prostate stem/progenitor-like cell proliferation and differentiation via MYC Scientific reports 2020-12-14 [PMID: 33318499] (ICC/IF, IHC-P, Human)

Samanta D, Huang T, Shah R et al. BIRC2 Expression Impairs Anti-Cancer Immunity and Immunotherapy Efficacy Cell Rep [PMID: 32846130] (FLOW, Mouse)

### Details:

Citation using the PE format of this antibody.

Marzban H, Sasani F Canine Mammary Gland Cancer Stem Cell and its Potential Role in Malignant Biologic Behavior Iranian Journal of Veterinary Medicine 2020-01-01 (WB, Canine)

Chen PY, Qin L, Li G et al. Smooth Muscle Cell Reprogramming in Aortic Aneurysms Cell Stem Cell 2020-04-02 [PMID: 32243809] (Mouse)

Jeong YJ, Oh HK, Park SH, Bong JG. Association between inflammation and cancer stem cell phenotype in breast cancer. Nat Commun. [PMID: 29434947] (IHC-P, Human)

Hassanzadeh H, Matin MM, Naderi-Meshkin H et al. Using paracrine effects of Ad-MSCs on keratinocyte cultivation and fabrication of epidermal sheets for improving clinical applications Cell Tissue Bank 2018-08-13 [PMID: 30105667] (FLOW, Human)

More publications at <http://www.novusbio.com/NBP1-47386>





### **Novus Biologicals USA**

10730 E. Briarwood Avenue  
Centennial, CO 80112  
USA  
Phone: 303.730.1950  
Toll Free: 1.888.506.6887  
Fax: 303.730.1966  
nb-customerservice@bio-techne.com

### **Bio-Techne Canada**

21 Canmotor Ave  
Toronto, ON M8Z 4E6  
Canada  
Phone: 905.827.6400  
Toll Free: 855.668.8722  
Fax: 905.827.6402  
canada.inquires@bio-techne.com

### **Bio-Techne Ltd**

19 Barton Lane  
Abingdon Science Park  
Abingdon, OX14 3NB, United Kingdom  
Phone: (44) (0) 1235 529449  
Free Phone: 0800 37 34 15  
Fax: (44) (0) 1235 533420  
info.EMEA@bio-techne.com

### **General Contact Information**

[www.novusbio.com](http://www.novusbio.com)  
Technical Support: nb-technical@bio-techne.com  
Orders: nb-customerservice@bio-techne.com  
General: novus@novusbio.com

### **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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