

# Product Datasheet

## PMCA1 Antibody (5F10) NB300-578

Unit Size: 100uL

Store at -20C. Avoid freeze-thaw cycles.

[www.novusbio.com](http://www.novusbio.com)



[technical@novusbio.com](mailto:technical@novusbio.com)

### Publications: 10

Protocols, Publications, Related Products, Reviews, Research Tools and Images at:  
[www.novusbio.com/NB300-578](http://www.novusbio.com/NB300-578)

Updated 9/9/2025 v.20.1

### Earn rewards for product reviews and publications.

Submit a publication at [www.novusbio.com/publications](http://www.novusbio.com/publications)

Submit a review at [www.novusbio.com/reviews/destination/NB300-578](http://www.novusbio.com/reviews/destination/NB300-578)

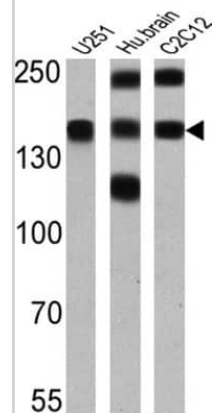


**NB300-578****PMCA1 Antibody (5F10)**

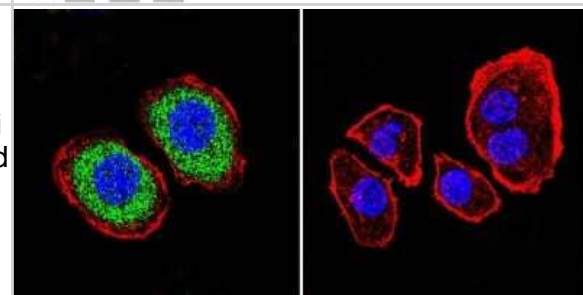
| <b>Product Information</b>         |   |
|------------------------------------|---|
| <b>Unit Size</b>                   | 100uL   |
| <b>Concentration</b>               | This product is unpurified. The exact concentration of antibody is not quantifiable.  |
| <b>Storage</b>                     | Store at -20C. Avoid freeze-thaw cycles.  |
| <b>Clonality</b>                   | Monoclonal  |
| <b>Clone</b>                       | 5F10  |
| <b>Preservative</b>                | 0.05% Sodium Azide  |
| <b>Isotype</b>                     | IgG2a   |
| <b>Purity</b>                      | Unpurified  |
| <b>Buffer</b>                      | Ascites   |
| <b>Product Description</b>         |   |
| <b>Description</b>                 | Novus Biologicals Mouse PMCA1 Antibody (5F10) (NB300-578) is a monoclonal antibody validated for use in IHC, WB, Flow, ICC/IF and IP. Anti-PMCA1 Antibody: Cited in 10 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.  |
| <b>Host</b>                        | Mouse   |
| <b>Gene ID</b>                     | 490   |
| <b>Gene Symbol</b>                 | ATP2B1  |
| <b>Species</b>                     | Human, Mouse, Rat, Porcine, Amphibian, Canine, Chicken, Feline, Hamster, Primate, Rabbit, Sheep   |
| <b>Reactivity Notes</b>            | Hamster reactivity reported in scientific literature (PMID: 11022033). Porcine reactivity reported in scientific literature (PMID: 17680983). Please note that this antibody is reactive to Mouse and derived from the same host, Mouse. Additional Mouse on Mouse blocking steps may be required for IHC and ICC experiments. Please contact Technical Support for more information. |
| <b>Immunogen</b>                   | Purified human erythrocyte calcium ATPase.  |
| <b>Product Application Details</b> |   |
| <b>Applications</b>                | Western Blot, Immunohistochemistry-Paraffin, Flow Cytometry, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen, Immunoprecipitation  |
| <b>Recommended Dilutions</b>       | Western Blot 1:1000 - 1:5000, Flow Cytometry 1 ug, Immunohistochemistry, Immunocytochemistry/ Immunofluorescence 1:10-1:500, Immunoprecipitation 1:10 - 1:500, Immunohistochemistry-Paraffin 1:500, Immunohistochemistry-Frozen 1:10 - 1:500  |
| <b>Application Notes</b>           | Blocking/Neutralizing and ELISA usages were reported in scientific literature.  |

## Images

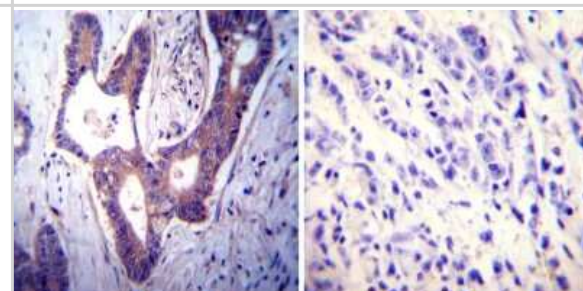
Western Blot: PMCA1 Antibody (5F10) [NB300-578] - Analysis of 25 ug of U251 (lane 1), human brain (lane 2) and C2C12 (lane 3).



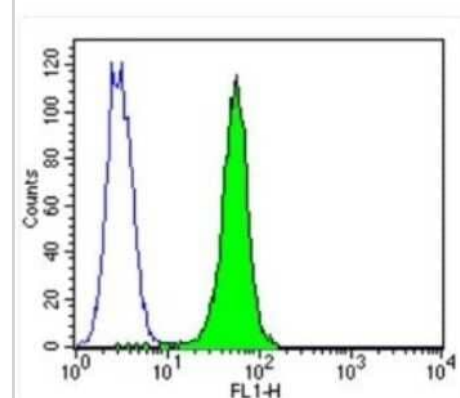
Immunocytochemistry/Immunofluorescence: PMCA1 Antibody (5F10) [NB300-578] - Analysis of PMCA ATPase using Anti-PMCA ATPase Monoclonal Antibody (5F10) shows staining in U251 Cells. PMCA ATPase staining (green), F-Actin staining with Phalloidin (red) and nuclei with DAPI (blue) is shown. Cells were grown on chamber slides and fixed with formaldehyde prior to staining. Cells were probed without (control) or with or an antibody recognizing PMCA ATPase at a dilution of 1:200 over night at 4C, washed with PBS and incubated with a DyLight-488 conjugated.



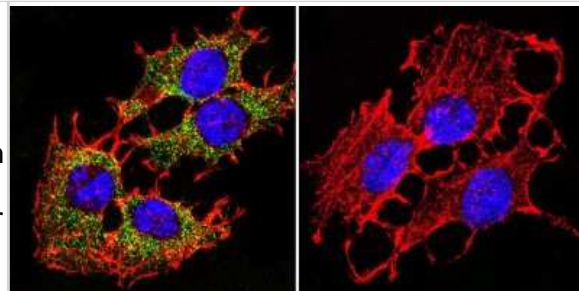
Immunohistochemistry-Paraffin: PMCA1 Antibody (5F10) [NB300-578] - Both normal and cancer biopsies of deparaffinized Human colon carcinoma tissues.



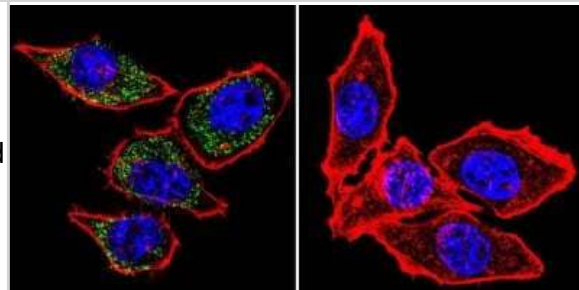
Flow Cytometry: PMCA1 Antibody (5F10) [NB300-578] - Analysis of PMCA ATPase in HeLa cells (green) compared to an isotype control (blue).



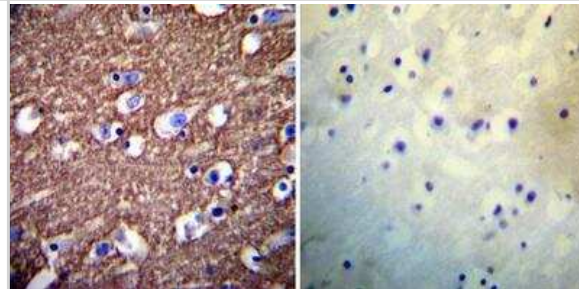
Immunocytochemistry/Immunofluorescence: PMCA1 Antibody (5F10) [NB300-578] - Analysis of PMCA ATPase using Anti-PMCA ATPase Monoclonal Antibody (5F10) shows staining in C6 Cells. PMCA ATPase staining (green), F-Actin staining with Phalloidin (red) and nuclei with DAPI (blue) is shown. Cells were grown on chamber slides and fixed with formaldehyde prior to staining. Cells were probed without (control) or with or an antibody recognizing PMCA ATPase at a dilution of 1:200 over night at 4C, washed with PBS and incubated with a DyLight-488 conjugated.



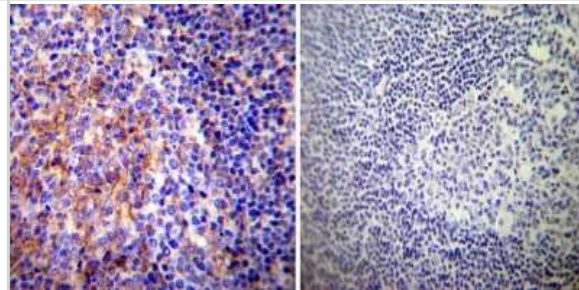
Immunocytochemistry/Immunofluorescence: PMCA1 Antibody (5F10) [NB300-578] - Analysis of PMCA ATPase using Anti-PMCA ATPase Monoclonal Antibody (5F10) shows staining in Hela Cells. PMCA ATPase staining (green), F-Actin staining with Phalloidin (red) and nuclei with DAPI (blue) is shown. Cells were grown on chamber slides and fixed with formaldehyde prior to staining. Cells were probed without (control) or with or an antibody recognizing PMCA ATPase at a dilution of 1:100 over night at 4C, washed with PBS and incubated with a DyLight-488 conjugated.



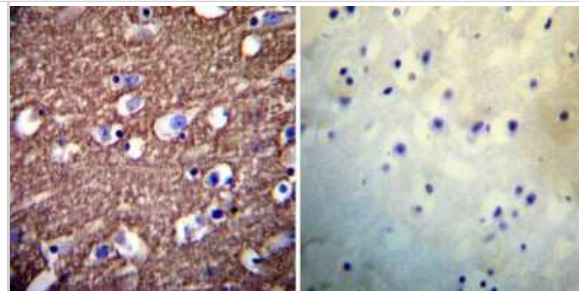
Immunohistochemistry-Paraffin: PMCA1 Antibody (5F10) [NB300-578] - Both normal and cancer biopsies of deparaffinized Human heart tissues.



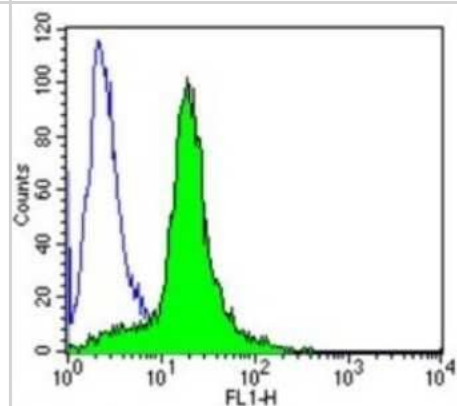
Immunohistochemistry-Paraffin: PMCA1 Antibody (5F10) [NB300-578] - Both normal and cancer biopsies of deparaffinized Human tonsil tissues.



Immunohistochemistry-Paraffin: PMCA1 Antibody (5F10) [NB300-578] - Both normal and cancer biopsies of deparaffinized Human heart tissues.



Flow Cytometry: PMCA1 Antibody (5F10) [NB300-578] - Analysis of PMCA ATPase in Jurkat cells (green) compared to an isotype control (blue).



## Publications

Cong J, Liu P, Han Z, Ying W et al. Bile acids modified by the intestinal microbiota promote colorectal cancer growth by suppressing CD8(+) T cell effector functions *Immunity* 2024-03-13 [PMID: 38479384]

Abrego J, Sanford-Crane H, Oon C et al. A Cancer Cell-Intrinsic GOT2-PPAR $\gamma$  Axis Suppresses Antitumor Immunity *Cancer discovery* 2022-10-05 [PMID: 35894778] (WB, Human)

Ibeh CL, Yiu AJ, Kanaras YL et al. Evidence for a regulated Ca<sup>2+</sup> entry in proximal tubular cells and its implication in calcium stone formation *J. Cell. Sci.* 2019-03-25 [PMID: 30910829] (WB, Mouse)

Louch WE, Hougen K, Mork HK et al. Sodium accumulation promotes diastolic dysfunction in end-stage heart failure following Serca2 knockout. *J Physiol.* 2010-02-01 [PMID: 20008467]

Sinkins WG, Estacion M, Prasad V et al. Maitotoxin converts the plasmalemmal Ca(2+) pump into a Ca(2+)-permeable nonselective cation channel. *Am J Physiol Cell Physiol.* 2009-12-01 [PMID: 19794142]

Hill JK, Williams DE, LeMasurier M et al. Splice-site A choice targets plasma-membrane Ca<sup>2+</sup>-ATPase isoform 2 to hair bundles. *J Neurosci.* 2006-06-01 [PMID: 16763025]

Krizaj D, Liu X, Copenhagen DR et al. Expression of calcium transporters in the retina of the tiger salamander (*Ambystoma tigrinum*). *J Comp Neurol.* 2004-08-01 [PMID: 15236230]

Filoteo AG, Elwess NL, Enyedi A et al. Plasma membrane Ca<sup>2+</sup> pump in rat brain. Patterns of alternative splices seen by isoform-specific antibodies. *J Biol Chem.* 1997-09-01 [PMID: 9295318]

Caride AJ, Filoteo AG, Enyedi A et al. Detection of isoform 4 of the plasma membrane calcium pump in human tissues by using isoform-specific monoclonal antibodies. *Biochem J.* 1996-05-01 [PMID: 8645230]

Borke JL, Caride A, Verma AK et al. Plasma membrane calcium pump and 28-kDa calcium binding protein in cells of rat kidney distal tubules. *Am J Physiol.* 1989-11-01 [PMID: 2556040]



### **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  
Technical Support: nb-technical@bio-techne.com  
Orders: nb-customerservice@bio-techne.com  
General: novus@novusbio.com

### **Products Related to NB300-578**

---

|             |  |
|-------------|--|
| NBP2-33376H | Blue Marker Antibody (6F4-F6) [HRP]                |
| HAF007      | Goat anti-Mouse IgG Secondary Antibody [HRP]       |
| NB7539      | Goat anti-Mouse IgG (H+L) Secondary Antibody [HRP] |
| NBP1-96778  | Mouse IgG2a Isotype Control (M2A)                  |

---

### **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.

For more information on our 100% guarantee, please visit [www.novusbio.com/guarantee](http://www.novusbio.com/guarantee)

Earn gift cards/discounts by submitting a review: [www.novusbio.com/reviews/submit/NB300-578](http://www.novusbio.com/reviews/submit/NB300-578)

Earn gift cards/discounts by submitting a publication using this product:  
[www.novusbio.com/publications](http://www.novusbio.com/publications)

