

# Product Datasheet

## PMCA1 Antibody (5F10) NB300-578

Unit Size: 100uL

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

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**NB300-578**

PMCA1 Antibody (5F10)

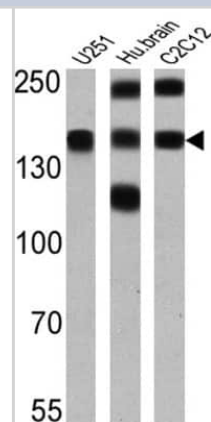
Product Information	
Unit Size	100uL
Concentration	This product is unpurified. The exact concentration of antibody is not quantifiable.
Storage	Store at -20C. Avoid freeze-thaw cycles.
Clonality	Monoclonal
Clone	5F10
Preservative	0.05% Sodium Azide
Isotype	IgG2a
Purity	Unpurified
Buffer	Ascites

Product Description	
Host	Mouse
Gene ID	490
Gene Symbol	ATP2B1
Species	Human, Mouse, Rat, Porcine, Amphibian, Canine, Chicken, Feline, Hamster, Primate, Rabbit, Sheep
Reactivity Notes	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.
Immunogen	Purified human erythrocyte calcium ATPase.

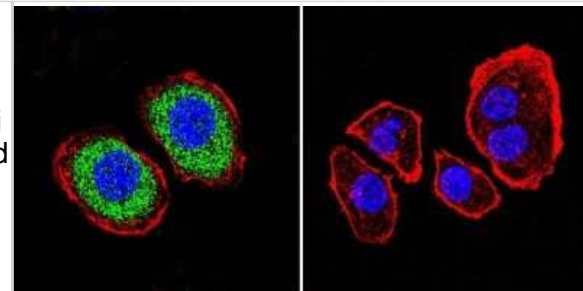
Product Application Details	
Applications	Western Blot, Flow Cytometry, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen, Immunohistochemistry-Paraffin, Immunoprecipitation
Recommended Dilutions	Western Blot 1:1000 - 1:5000, Flow Cytometry 1 ug, Immunohistochemistry, Immunocytochemistry/ Immunofluorescence 1:10-1:500, Immunoprecipitation 1:10 - 1:500, Immunohistochemistry-Paraffin 1:500, Immunohistochemistry-Frozen 1:10 - 1:500
Application Notes	Blocking/Neutralizing and ELISA usages were reported in scientific literature.

**Images**

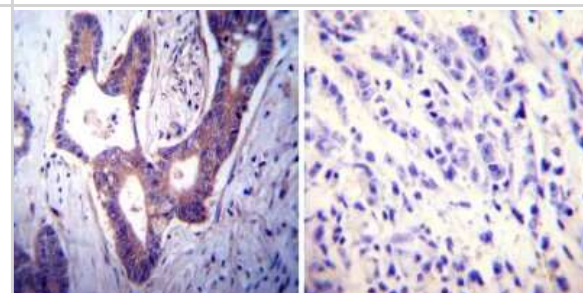
Western Blot: PMCA1 Antibody (5F10) [NB300-578] - Analysis of 25 ug of U251 (lane 1), human brain (lane 2) and C2C12 (lane 3).



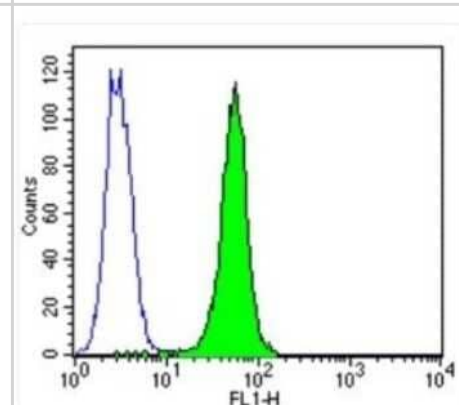
**Immunocytochemistry/Immunofluorescence: PMCA1 Antibody (5F10) [NB300-578]** - Analysis of PMCA ATPase using Anti-PMCA ATPase Monoclonal Antibody (5F10) shows staining in U251 Cells. PMCA ATPase staining (green), F-Actin staining with Phalloidin (red) and nuclei with DAPI (blue) is shown. Cells were 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.



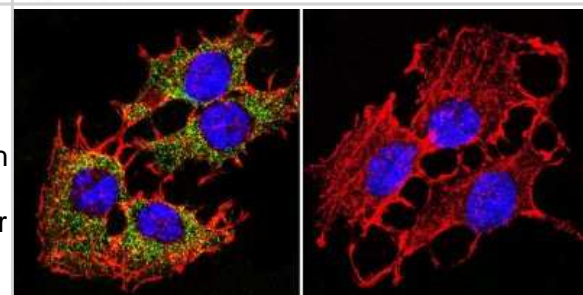
**Immunohistochemistry-Paraffin: PMCA1 Antibody (5F10) [NB300-578]** - Both normal and cancer biopsies of deparaffinized Human colon carcinoma tissues.



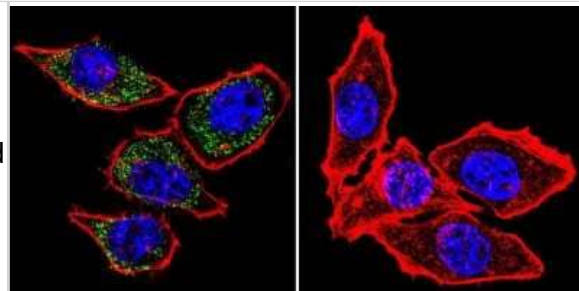
**Flow Cytometry: PMCA1 Antibody (5F10) [NB300-578]** - Analysis of PMCA ATPase in Hela cells (green) compared to an isotype control (blue).



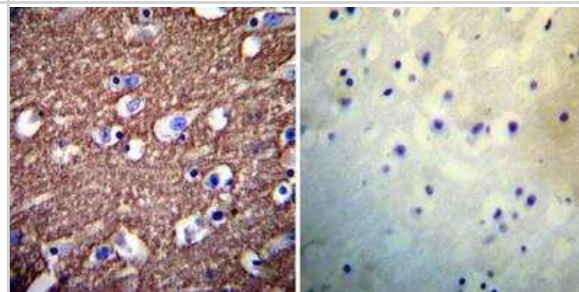
**Immunocytochemistry/Immunofluorescence: PMCA1 Antibody (5F10) [NB300-578]** - Analysis of PMCA ATPase using Anti-PMCA ATPase Monoclonal Antibody (5F10) shows staining in C6 Cells. PMCA ATPase staining (green), F-Actin staining with Phalloidin (red) and nuclei with DAPI (blue) is shown. Cells were grown 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.



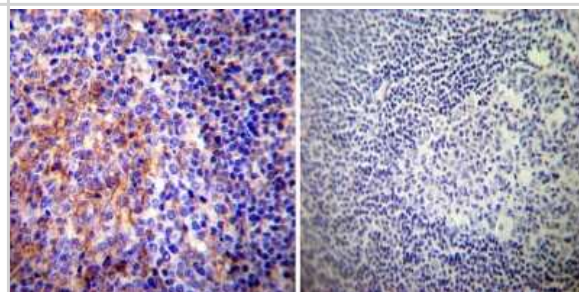
Immunocytochemistry/Immunofluorescence: PMCA1 Antibody (5F10) [NB300-578] - Analysis of PMCA ATPase using Anti-PMCA ATPase Monoclonal Antibody (5F10) shows staining in Hela Cells. PMCA ATPase staining (green), F-Actin staining with Phalloidin (red) and nuclei with DAPI (blue) is shown. Cells were grown 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.



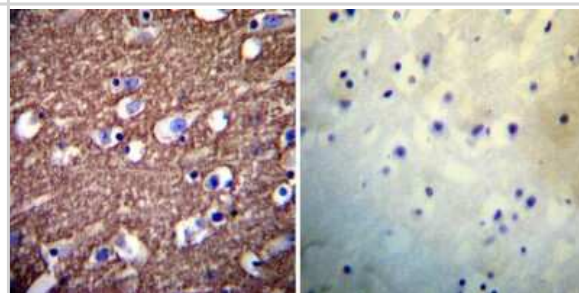
Immunohistochemistry-Paraffin: PMCA1 Antibody (5F10) [NB300-578] - Both normal and cancer biopsies of deparaffinized Human heart tissues.



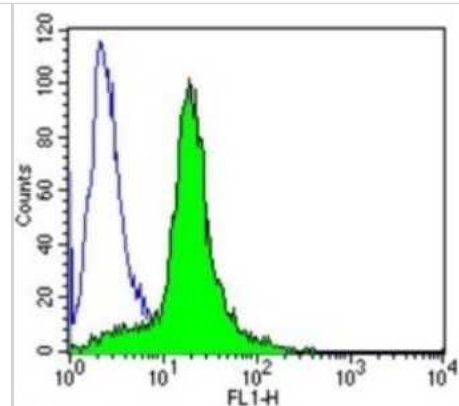
Immunohistochemistry-Paraffin: PMCA1 Antibody (5F10) [NB300-578] - Both normal and cancer biopsies of deparaffinized Human tonsil tissues.



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

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  $\text{Ca}^{2+}$  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  $\text{Ca}^{2+}$  pump into a  $\text{Ca}^{2+}$ -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  $\text{Ca}^{2+}$ -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  $\text{Ca}^{2+}$  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](http://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**

HAF007	Goat anti-Mouse IgG Secondary Antibody [HRP]
NB720-B	Rabbit anti-Mouse IgG (H+L) Secondary Antibody [Biotin]
NBP1-96778	Mouse IgG2a Isotype Control (M2A)
H00000490-Q01-10ug	Recombinant Human PMCA1 GST (N-Term) Protein

### **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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