

# Product Datasheet

## PMCA4 Antibody (JA9) NB300-569

Unit Size: 100ug

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

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Updated 10/23/2024 v.20.1

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**NB300-569****PMCA4 Antibody (JA9)**

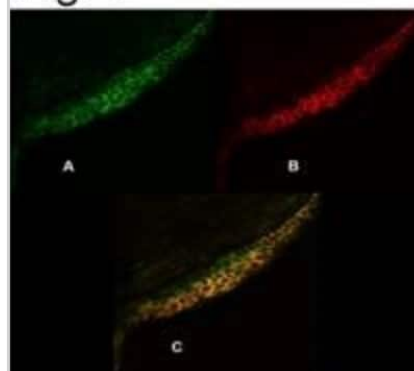
<b>Product Information</b>	
<b>Unit Size</b>	100ug
<b>Concentration</b>	1 mg/ml
<b>Storage</b>	Store at -20C. Avoid freeze-thaw cycles.
<b>Clonality</b>	Monoclonal
<b>Clone</b>	JA9
<b>Preservative</b>	0.05% Sodium Azide
<b>Isotype</b>	IgG1
<b>Purity</b>	Immunogen affinity purified
<b>Buffer</b>	PBS with 1 mg/ml BSA
<b>Product Description</b>	
<b>Host</b>	Mouse
<b>Gene ID</b>	493
<b>Gene Symbol</b>	ATP2B4
<b>Species</b>	Human, Mouse, Rat, Porcine, Amphibian, Bovine, Rabbit
<b>Reactivity Notes</b>	Mouse reactivity reported in scientific literature (PMID: 23845592). Rabbit reactivity reported in scientific literature (PMID: 21139678). Bovine reactivity reported in scientific literature (PMID: 23715721). Amphibian reactivity reported in scientific literature (PMID: 15236230). 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>Specificity/Sensitivity</b>	This is specific to the PMCA4 isoform.
<b>Immunogen</b>	Purified human erythrocyte PMCA.
<b>Product Application Details</b>	
<b>Applications</b>	Western Blot, ELISA, Flow Cytometry, Immunocytochemistry/Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen, Immunohistochemistry-Paraffin, Knockdown Validated
<b>Recommended Dilutions</b>	Western Blot 1:1000, Flow Cytometry 2 ug / 10 <sup>6</sup> cells, ELISA 1:15000, Immunohistochemistry 1:100 - 1:500, Immunocytochemistry/Immunofluorescence 1:10 - 1:500, Immunohistochemistry-Paraffin 1:100 - 1:500, Immunohistochemistry-Frozen 1:100 - 1:500, Knockdown Validated
<b>Application Notes</b>	WB: Detects an approx. 133 and 129 kDA protein representing PMCA4a and PMCA4b ATPase respectively. May be useful in Flow.



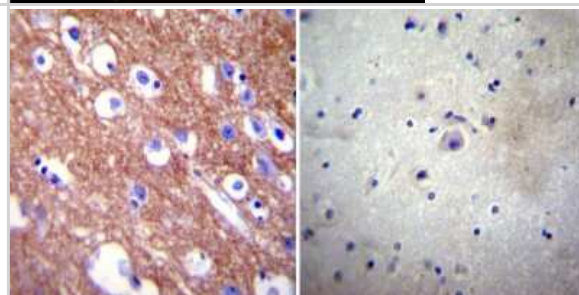
## Images

Immunocytochemistry/Immunofluorescence: PMCA4 Antibody (JA9) [NB300-569] - Immunolocalization of (A) PMCA4 (green), (B) CaSRO (red), and (C) Merged image.

Fig. 1



Immunohistochemistry-Paraffin: PMCA4 Antibody (JA9) [NB300-569] - Normal biopsies of deparaffinized Human brain tissue.



Immunocytochemistry/Immunofluorescence: PMCA4 Antibody (JA9) [NB300-569] - Figure 1 illustrates immunolocalization of PMCA4 and CaSRO in human corneal epithelium. (A) Immunolocalization of PMCA4 (green) using NB300-569 on cell membranes of all cells in each layer of hCE. (B) Immunolocalization of CaSRO (red) on cell membranes of hCE. (C) Merged image. Figure 2 illustrates immunolocalization of PMCA4 and CaSRO in bovine corneal epithelium (bCE). (A) Immunolocalization of PMCA4 (green) on cell membranes of all cells in each layer of bCE. (B) Immunolocalization of CaSRO (red) on cell membranes of bCE mostly in wing- and squamous cell layers. (C) Merged image.

Fig. 1

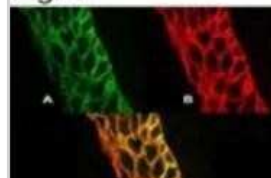
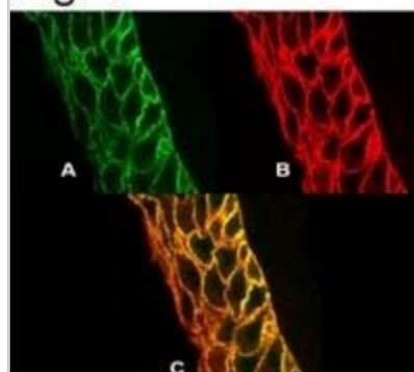


Fig. 1



Immunocytochemistry/Immunofluorescence: PMCA4 Antibody (JA9) [NB300-569] - Immunolocalization of (A) PMCA4 (green), (B) CaSRO (red), and (C) Merged image.

Fig. 1



## Publications

Bian S, Zhang X, Lin L et al. Exosomal MiR-4261 mediates calcium overload in RBCs by downregulating the expression of ATP2B4 in multiple myeloma *Frontiers in Oncology* 2022-08-26 [PMID: 36091107]

Hwang JY, Chai P, Nawaz S et al. LRRC23 truncation impairs radial spoke 3 head assembly and sperm motility underlying male infertility *bioRxiv : the preprint server for biology* 2023-06-10 [PMID: 36865175] (WB, Mouse)

Details:

1 ug/ml dilution

Yeh YC, Lin YP, Kramer H, Parekh AB Single nucleotide polymorphisms in Orai1 associated with atopic dermatitis inhibit protein turnover, decrease calcium entry and disrupt calcium-dependent gene expression *Hum. Mol. Genet.* 2019-10-10 [PMID: 31600783] (WB, KD, IP, Human)

Grabek A, Dolfi B, Klein B et al. Dual Sensing of Physiologic pH and Calcium by EFCAB9 Regulates Sperm Motility *Cell* 2019-05-30 [PMID: 31056283] (WB, Human)

Carvajal-Maldonado D, Byrum AK, Jackson J et al. Perturbing cohesin dynamics drives MRE11 nuclease-dependent replication fork slowing *Nucleic Acids Res.* 2018-06-18 [PMID: 29917110] (WB, Human)

Ma CT, Chyau CC, Hsu CC et al. Pepino polyphenolic extract improved oxidative, inflammatory and glycation stress in the sciatic nerves of diabetic mice. *Food Funct.* 2016-01-21 [PMID: 26791916] (WB, Mouse)

Chung JJ, Shim SH, Everley RA et al. Structurally distinct  $Ca^{2+}$  signaling domains of sperm flagella orchestrate tyrosine phosphorylation and motility. *Cell.* 2014-05-08 [PMID: 24813608] (ICC/IF, Mouse)

Chen JH, Wang CJ, Wang CP et al. Hibiscus sabdariffa leaf polyphenolic extract inhibits LDL oxidation and foam cell formation involving up-regulation of LXRalpha/ABCA1 pathway. *Food Chem.* 2013-11-01 [PMID: 23768373] (WB, Mouse)

Chen JH, Tsai CW, Wang CP, Lin HH. Anti-atherosclerotic potential of gossypetin via inhibiting LDL oxidation and foam cell formation. *Toxicol Appl Pharmacol* 2013-07-08 [PMID: 23845592] (WB, Mouse)

Ritchie MF, Samakai E, Soboloff J. STIM1 is required for attenuation of PMCA-mediated  $Ca^{2+}$  clearance during T-cell activation. *The EMBO Journal.* 2012-01-13 [PMID: 22246182]





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### **Products Related to NB300-569**

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HAF007	Goat anti-Mouse IgG Secondary Antibody [HRP]
NB720-B	Rabbit anti-Mouse IgG (H+L) Secondary Antibody [Biotin]
NBP1-97005-0.5mg	Mouse IgG1 Isotype Control (MG1)
NBP2-31984PEP	PMCA4 Recombinant Protein Antigen

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### **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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