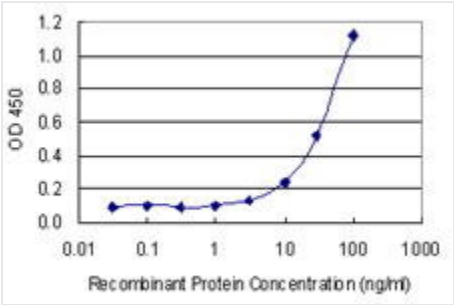
# ATP2B4 Antibody – Mouse Monoclonal

## PRODUCT OVERVIEW

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| **Product Name** | ATP2B4, Monoclonal Antibody |
| **Full Product Name** | ATP2B4 (ATPase, Ca++ Transporting, Plasma Membrane 4, ATP2B2, DKFZp686G08106, DKFZp686M088, MXRA1, PMCA4, PMCA4b, PMCA4x) (PE) |
| **Product Gene Name** | anti-ATP2B4 antibody |
| **Product Synonym Names** | ATPase; Ca++ Transporting; Plasma Membrane 4; ATP2B2; DKFZp686G08106; DKFZp686M088; MXRA1; PMCA4; PMCA4b; PMCA4x |
| **Clonality** | Monoclonal |
| **Isotype** | IgG1,k |
| **Clone Number** | 2G8 |
| **Host** | Mouse |
| **Form/Format** | Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with R-Phycoerythrin (PE). |
| **Purity/Purification** | Purified |
| **Specificity** | Recognizes ATP2B4. |
| **Preparation and Storage** | Store product at 4 degree C in the dark. DO NOT FREEZE! Stable at 4 degree C for 12 months after receipt as an undiluted liquid. Dilute required amount only prior to immediate use. Further dilutions can be made in assay buffer. Caution: PE conjugates are sensitive to light. For maximum recovery of product, centrifuge the original vial prior to removing the cap. |
| **OMIM** | M25874 mRNA |
| **3D Structure** | ModBase 3D Structure for P23634 |
| **Immunogen** | ATP2B4 (NP_001675, 1aa-92aa) partial recombinant protein with GST tag. MW of the GST tag alone is 26kD. |
| **Immunogen Sequence** | MTNPSDRVLPANSMAESREGDFGCTVMELRKLMELRSRDALTQINVHYGGVQNLCSRLKTSPVEGLSGNPADLEKRRQVFGHNVIPPKKPKT |
| **Conjugate** | PE |
| **Product Categories/Family for anti-ATP2B4 antibody** | Antibodies; Enzymes; ATPase |
| **Applications Tested/Suitable for anti-ATP2B4 antibody** | Western Blot (WB) |
| **Application Notes for anti-ATP2B4 antibody** | Applications are based on unconjugated antibody. |

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| **Related Product Information for anti-ATP2B4 antibody** | The protein encoded by this gene belongs to the family of P-type primary ion transport ATPases characterized by the formation of an aspartyl phosphate intermediate during the reaction cycle. These enzymes remove bivalent calcium ions from eukaryotic cells against very large concentration gradients and play a critical role in intracellular calcium homeostasis. The mammalian plasma membrane calcium ATPase isoforms are encoded by at least four separate genes and the diversity of these enzymes is further increased by alternative splicing of transcripts. The expression of different isoforms and splice variants is regulated in a developmental, tissue- and cell type-specific manner, suggesting that these pumps are functionally adapted to the physiological needs of particular cells and tissues. This gene encodes the plasma membrane calcium ATPase isoform 4. Alternatively spliced transcript variants encoding different isoforms have been identified. [provided by RefSeq] |
| **Other Notes** | Small volumes of anti-ATP2B4 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply. |
| **Searchable Terms for ATP2B4 purchase** | MBS6187431 is an antibody targeting ATP2B4. Also known as ATP2B4 (ATPase, Ca++ Transporting, Plasma Membrane 4, ATP2B2, DKFZp686G08106, DKFZp686M088, MXRA1, PMCA4, PMCA4b, PMCA4x) (PE). Host: Mouse. |




**Testing Data of anti-ATP2B4 antibody**
Detection limit for recombinant GST tagged ATP2B4 is 1 ng/ml as a capture antibody.

## ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for ATP2B4. It may not necessarily be applicable to this product.

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| **NCBI GI #** | 48255957 |
| **NCBI GeneID** | 493 |
| **NCBI Accession #** | NP_001675 |
| **UniProt Primary Accession #** | P23634 |
| **UniProt Related Accession #** | P23634 |
| **GenBank Nucleotide #** | NP_001675.3 |
| **NCBI Official Full Name** | plasma membrane calcium-transporting ATPase 4 isoform 4b |
| **NCBI Official Synonym Full Names** | ATPase plasma membrane Ca2+ transporting 4 |
| **NCBI Official Symbol** | ATP2B4 |
| **NCBI Official Synonym Symbols** | MXRA1; PMCA4; ATP2B2; PMCA4b; PMCA4x |
| **UniProt Protein Name** | Plasma membrane calcium-transporting ATPase 4 |
| **UniProt Synonym Protein Names** | Matrix-remodeling-associated protein 1; Plasma membrane calcium ATPase isoform 4; Plasma membrane calcium pump isoform 4 |
| **Protein Family** | Plasma membrane calcium-transporting ATPase |
| **UniProt Gene Name** | ATP2B4 |
| **UniProt Synonym Gene Names** | PMCA4 |
| **NCBI Protein Information** | plasma membrane calcium-transporting ATPase 4 |

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| **UniProt Comments for ATP2B4** | PMCA4: a plasma membrane calcium pump. A magnesium-dependent enzyme catalyzes the hydrolysis of ATP coupled with the transport of calcium out of the cell. Eight splice-variant isoforms have been described.<br><br>Protein type: Channel, calcium; EC 3.6.3.8; Hydrolase; Membrane protein, integral; Membrane protein, multi-pass; Transporter; Transporter, ion channel<br><br>Chromosomal Location of Human Ortholog: 1q32.1<br><br>Cellular Component: basolateral plasma membrane; caveola; integral component of plasma membrane; intracellular membrane-bound organelle; membrane; neuron projection; plasma membrane; protein complex; T-tubule; Z disc<br><br>Molecular Function: ATP binding; calcium-transporting ATPase activity; calmodulin binding; metal ion binding; nitric-oxide synthase binding; nitric-oxide synthase inhibitor activity; PDZ domain binding; protein binding; protein kinase binding; protein phosphatase 2B binding; sodium channel regulator activity<br><br>Biological Process: calcium ion export; calcium ion import across plasma membrane; cellular calcium ion homeostasis; cellular response to epinephrine stimulus; hippocampus development; negative regulation of adrenergic receptor signaling pathway involved in heart process; negative regulation of arginine catabolic process; negative regulation of nitric oxide biosynthetic process; negative regulation of nitric oxide mediated signal transduction; negative regulation of nitric-oxide synthase activity; negative regulation of peptidyl-cysteine S-nitrosylation; negative regulation of the force of heart contraction; neural retina development; positive regulation of cAMP-dependent protein kinase activity; positive regulation of peptidyl-serine phosphorylation; regulation of cell cycle G1/S phase transition; regulation of sodium ion transmembrane transport; regulation of transcription from RNA polymerase II promoter; response to hydrostatic pressure; sperm motility; spermatogenesis |
| **Research Articles on ATP2B4** | **1.** PMCA4b overexpression preserves cardiac function following ischemia reperfusion injury, heightens cardiac performance and limits infarct progression, cardiac hypertrophy and heart failure. |
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