

## Anti-ATP2A2 Antibody (2R687)

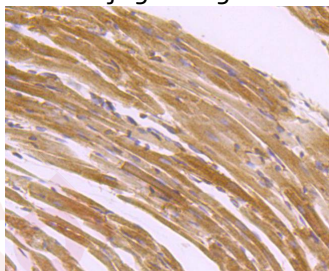
### Product Details

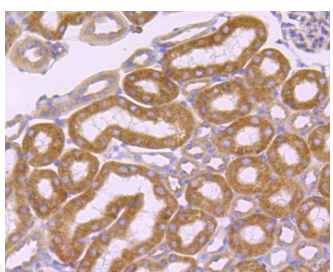
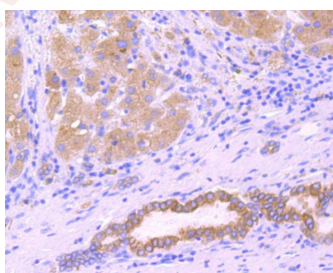
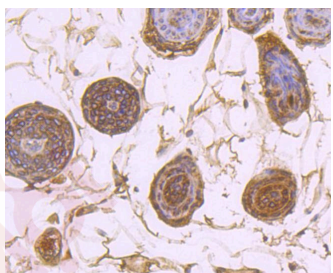
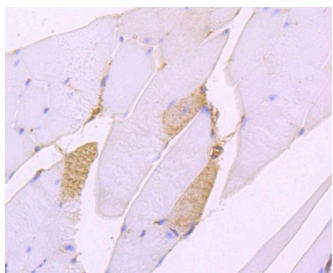
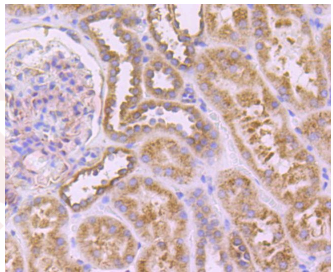
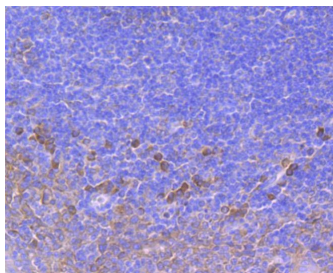
Ig Type:	IgG
Reactivity:	Human,Mouse,Rat
Conjugation:	Unconjugated
Molecular Weight:	Theoretical: 115 kDa.
Clone:	2R687
Purification:	ProA affinity purified

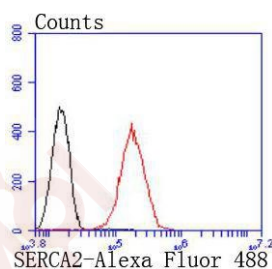
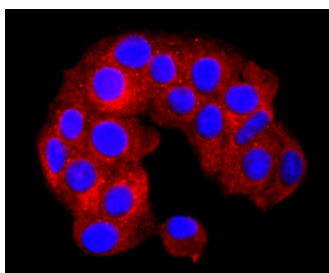
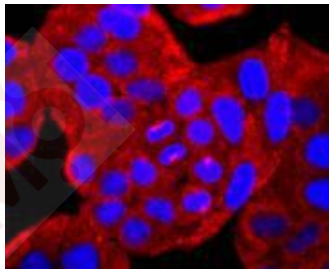
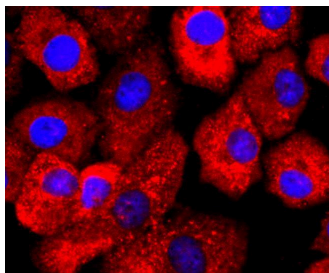
### Applications

#### Verified Activity:

1. Immunohistochemical analysis of paraffin-embedded mouse heart tissue using anti-SERCA2 antibody. Counter stained with hematoxylin.
2. Immunohistochemical analysis of paraffin-embedded human tonsil tissue using anti-SERCA2 antibody. Counter stained with hematoxylin.
3. Immunohistochemical analysis of paraffin-embedded human kidney tissue using anti-SERCA2 antibody. Counter stained with hematoxylin.
4. Immunohistochemical analysis of paraffin-embedded mouse skeletal muscle tissue using anti-SERCA2 antibody. Counter stained with hematoxylin.
5. Immunohistochemical analysis of paraffin-embedded mouse skin tissue using anti-SERCA2 antibody. Counter stained with hematoxylin.
6. Immunohistochemical analysis of paraffin-embedded human liver cancer tissue using anti-SERCA2 antibody. Counter stained with hematoxylin.
7. Immunohistochemical analysis of paraffin-embedded mouse kidney tissue using anti-SERCA2 antibody. Counter stained with hematoxylin.
8. ICC staining SERCA2 in A549 cells (red). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.
9. ICC staining SERCA2 in Hela cells (red). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.
10. ICC staining SERCA2 in MCF-7 cells (red). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.
11. Flow cytometric analysis of Hela cells with SERCA2 antibody at 1/50 dilution (red) compared with an unlabelled control (cells without incubation with primary antibody; black). Alexa Fluor 488-conjugated goat anti rabbit IgG was used as the secondary antibody.







Application: FCM, ICC/IF, IHC, WB

Recommended WB: 1:1000; IHC: 1:50-200; ICC/IF: 1:50-200; FCM: 1:50-100

### Properties

Stability & Storage: Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.

Shipping: Shipping with blue ice.

### Antigen Details

Immunogen: Recombinant Protein

Uniprot ID: P16615

### Research Background

ATP dependent calcium pumps are responsible, in part, for the maintenance of low cytoplasmic free calcium concentrations. The ATP pumps that reside in intracellular organelles are encoded by a family of structurally related enzymes, termed the sarcoplasmic or endoplasmic reticulum calcium (SERCA) ATPases. The sarcoplasmic reticulum of striated muscle is a specialized intracellular membrane system that plays a critical role in the contraction and relaxation of muscle. The SERCAs mediate Ca<sup>2+</sup> uptake into intracellular stores. SERCA-mediated Ca<sup>2+</sup> uptake induces and maintains muscular relaxation. The SERCA1 gene is exclusively expressed in type II (fast) skeletal

muscle. The SERCA2 gene is subject to tissue-dependent processing which is responsible for the generation of the SERCA2a muscle-specific form expressed in type I (slow) skeletal, cardiac and smooth muscle, and the SERCA2b isoform expressed in all cell types. The SERCA3 gene is not as well characterized and is found in non-muscle cells. SERCA2 plays an important part in regulating cardiac contractile function. SERCA3 is an isoform expressed in several cell types including platelets, lymphoid cells and mast cells. SERCA1, SERCA2 and SERCA3 all undergo alternative splicing.

**Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins**

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