

## SERCA2a pAb serum

Quality Control Certificate of Analysis

Catalogue No.:A010-20

Unit Size: 25 µl Lot No: 642213

Background: SERCA2a is a Ca<sup>2+</sup> pump located in the sarcoplasmic reticulum of cardiac and slow-twitch skeletal muscle. The enzyme transports Ca<sup>2+</sup> from the cytoplasm into the SR using the hydrolysis of ATP as the energy source for this reaction. Two Ca<sup>2+</sup> are transported for each ATP hydrolysed. This Ca<sup>2+</sup> transport is the principal means of muscle relaxation in cardiac and slow-twitch skeletal muscle. The activity of SERCA2a is moderated by its interaction with phospholamban. SERCA2a is one isoform of SERCA2: this isoform differs from SERCA2b and SERCA2c at the extreme carboxy terminus only. Antibody A010-20 recognises the C-terminal sequence which distinguishes SERCA2a from SERCA2b and SERCA2c (Dally *et al.*, 2006).

**Description:** Lyophilised **Rabbit** polyclonal serum (A010-20) containing IgG antibody specific to SERCA2a

Immunogen: Synthetic peptide (C-LEPAILE<sub>997</sub>) corresponding to amino acids at the extreme C-terminus of SERCA2a.

Antibody Isotype: IgG.

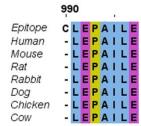
Antibody Purity: Raw Serum.

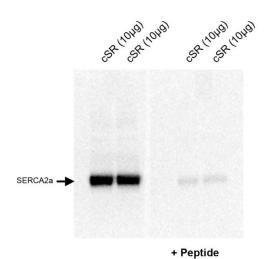
Vial Constituents: Lyophilised A010-12 Rabbit anti-serum (20 µl)

**Specificity:** The antibody recognises SERCA2a and binding is blocked in the presence of a peptide containing the epitope. The antibody reacts with SERCA2a from human, rat, mouse, rabbit, canine, and bovine species.

Storage Instructions: Lyophilised antibody is stable at 4°C when stored with desiccant. Reconstitute lyophilised powder in 25  $\mu$ l of 18 M $\Omega$  H $_2$ O, aliquot and store frozen at -80°C for 1 year. Avoid freeze - thaw cycles.

Tested Applications: WB 1:5000, ELISA and IHC microscopy





WB using 1:5000 SERCA2a anti-serum (A010-20) against 10µg of canine cardiac Sarcoplasmic

Reticulum.
Primary Ab incubations performed +/- 1 μM immunising peptide. 6 % SDS-PAGE, PVDF

SERCA2a detection in canine cardiac SR
4ug SR in dephos (a), CaMKII phos (b), PKA phos (c)
State. SDS-PAGE on 15% gel, blotted with

A010-20 lot: 0814-01, 1:5000 dilution.

## **Related Products:**

SERCA1 Y/IF4 Antibody (A010-21AP), SERCA1 B/4H3 Antibody (A010-22AP)

## **Background References:**

Colyer, J., & Wang J.H. (1991) *J. Biol. Chem.* 266, 17486-17493 Dally, S. et al. (2006) Biochem. J. 395, 249-258