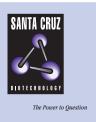
## SANTA CRUZ BIOTECHNOLOGY, INC.

# CAX3 (aC-20): sc-27245



#### BACKGROUND

Precise regulation of calcium transporters is essential for modulating the Ca<sup>2+</sup> signaling network that is involved in the growth and adaptation of all organisms. In plants and fungi, vacuolar transporters help remove potentially toxic cations from the cytosol. Transporter-mediated Ca<sup>2+</sup> efflux from the cytoplasm is an important component of plant signal transduction. The *Arabidopsis thaliana* cation exchangers, CAX1, CAX2 and CAX3, can transport Ca<sup>2+</sup> into the vacuole.

### REFERENCES

- Shigaki, T., et al. 2001. Structural determinants of Ca<sup>2+</sup> transport in the Arabidopsis H+/Ca<sup>2+</sup> antiporter CAX1. J. Biol. Chem. 276: 43152-43159.
- 2. Cheng, N.H., et al. 2002. Characterization of CAX4, an *Arabidopsis* H<sup>+</sup>/cation antiporter. Plant Physiol. 128: 1245-1254.
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- Pittman, J.K., et al. 2002. Distinct N-terminal regulatory domains of Ca<sup>2+</sup>/H<sup>+</sup> antiporters. Plant Physiol. 130: 1054-1062.
- Cheng, N.H., et al. 2003. Cloning and characterization of CXIP1, a novel PICOT domain-containing *Arabidopsis* protein that associates with CAX1. J. Biol. Chem. 278: 6503-6509.
- Cheng, N.H., et al. 2003. The Arabidopsis cax1 mutant exhibits impaired ion homeostasis, development, and hormonal responses and reveals interplay among vacuolar transporters. Plant Cell. 15: 347-364.
- Cheng, N.H., et al. 2004. Characterization of CXIP4, a novel *Arabidopsis* protein that activates the H<sup>+</sup>/Ca<sup>2+</sup> antiporter, CAX1. FEBS Letts. 559: 99-106.

#### SOURCE

CAX3 (aC-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of CAX3 of *Arabidopsis thaliana* origin.

#### PRODUCT

Each vial contains 200  $\mu g$  lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-27245 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

#### **STORAGE**

Store at 4° C, \*\*D0 NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

#### **RESEARCH USE**

For research use only, not for use in diagnostic procedures.

#### PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

#### **APPLICATIONS**

CAX3 (aC-20) is recommended for detection of CAX3 of *Arabidopsis thaliana* origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

#### **RECOMMENDED SECONDARY REAGENTS**

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker<sup>™</sup> compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluores-cence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz<sup>™</sup> Mounting Medium: sc-24941.