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Product no AS11 1800

ACC | 1-Aminocyclopropane-1-carboxylic acid

Product information

Immunogen	KLH-conjugated ACC
Host	Rabbit
Clonality	Polyclonal
Purity	Serum
Format	Lyophilized
Quantity	200 µl
Reconstitution	For reconstitution add 200 µl of sterile water
Storage	Store lyophilized/reconstituted at -20°C; once reconstituted make aliquots to avoid repeated freeze-thaw cycles. Please remember to spin the tubes briefly prior to opening them to avoid any losses that might occur from material adhering to the cap or sides of the tube.

Application information

Recommended dilution	1 : 100 (IG)
Confirmed reactivity	ACC | 1-Aminocyclopropane-1-carboxylic acid
Predicted reactivity	ACC | 1-Aminocyclopropane-1-carboxylic acid
Not reactive in	No confirmed exceptions from predicted reactivity are currently known
Additional information	Details of used immunogold protocol are provided under an image
Selected references	Wilmowicz et al. (2019). Abscisic acid and ethylene in the control of nodule-specific response on drought in yellow lupine. Environmental and Experimental Botany Available online 2 October 2019, 103900. Serova et al. (2018). Early nodule senescence is activated in symbiotic mutants of pea (Pisum sativum L.) forming ineffective nodules blocked at different nodule developmental stages. Protoplasma. 2018 Apr 3. doi: 10.1007/s00709-018-1246-9.

application example

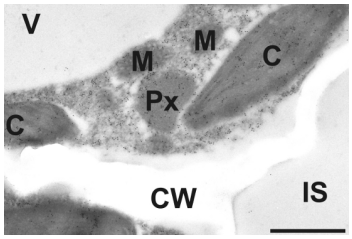

Image shows gold particle density in *Arabidopsis thaliana* Col-0 after immunogold labeling of ACC in the transmission electron microscope. Gold particles could be detected in chloroplasts **(C)**, mitochondria **(M)**, peroxisomes **(Px)**, and the dense cytosol. No or very few gold particles bound to ACC could be detected in vacuoles **(V)**, intercellular spaces **(IS)** and cell walls **(CW)**. Bar=1µm.

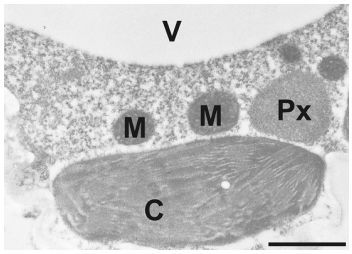

Image shows leaf cell of *Arabidopsis thaliana* Col-0 treated with preimmune serum instead of the primary antibody against ACC in the transmission electron microscope. No or only very few gold particles were present on the sections. **(C)** chloroplast, **(M)** mitochondria, **(Px)** peroxisome. Bar=1µm.

Sample fixation: Samples for cytohistochemical analysis were fixed for 90 minutes in 2.5% paraformaldehyde/0.5% glutardialdehyde in 0.06M Sørensen phosphate buffer (pH 7.2). Samples were rinsed 4 times for 10 minutes in phosphate buffer then dehydrated with increasing concentrations of acetone (50%, 70% and 90% 20 min for each step). The samples were then transferred to increasing concentrations of LR-White resin (30%, 60%, 100%; London Resin Company Ltd., Berkshire, UK) mixed with acetone (90%) for at least 3 h at each step at RT. Finally, the samples were embedded in pure, fresh LR-White resin and polymerized at 50°C for 48 h in small plastic cups under anaerobic conditions.

Immunogold labeling for electron microscopy: Block ultrathin sections (80nm) prepared for immunogold labeling with 2% bovine serum albumine (BSA) in phosphate buffered saline (PBS, pH 7.2). Then treat the sections with the primary antibody diluted 1:100 in PBS containing 1% BSA for 2 h at room temperature. After a short rinse in PBS (3 X 5 min), incubate samples with a gold-conjugated secondary antibody (goat anti-rabbit IgG; eg. 10nm; British BioCell International, Cardiff, UK) diluted 1:50 in PBS including 1% BSA for 90 min at room temperature. After a short wash in PBS (2 X 5 min), and distilled water (3 X 5 min) observe grids under a transmission electron microscope.

Courtesy of Dr. Bernd Zechmann, Graz University, Austria