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Agrisera AB | Box 57 | SE-91121 Vännäs | Sweden | +46 (0)935 33 000 | www.agrisera.com

Product no AS20 4408

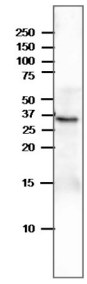
Delta-VPE | Vacuolar-processing enzyme delta-isozyme

Product information

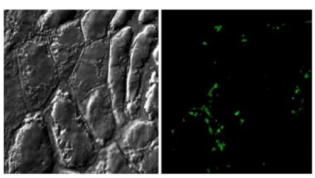
Immunogen	Recombinant, His6-tagged, delta-VPE from *Arabidopsis thaliana,* UniProt: Q9LJX8, TAIR: At3g20210
Host	Rabbit
Clonality	Polyclonal
Purity	Total IgG. Protein A purified in PBS, 50% glycerol. Filter sterilized.
Format	Liquid at 2 mg/ml.
Quantity	100 µg
Storage	Store at -20°C; once reconstituted 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: 500 (IF), 1: 5000 (IL), 1: 5000 (WB)
Expected | apparent MW	52 kDa (inactive precursor) | 37-38 kDa (mature, active form)
Confirmed reactivity	*Arabidopsis thaliana*
Predicted reactivity	*Camelina sativa, Capsella rubella, Eutrema salsugineum, Raphanus sativus* Species of your interest not listed? Contact us
Not reactive in	No confirmed exceptions from predicted reactivity are currently known
Additional information	Subcellular localisation is seed specific and restricted to developing seeds at 7 days after anthesis, Delta-VPE is detected at lower levels in flowers siliques, specifically in seed coats
Selected references	Kunieda et al. (2013). Spatiotemporal secretion of PEROXIDASE36 is required for seed coat mucilage extrusion in Arabidopsis. Plant Cell . 2013 Apr;25(4):1355-67.doi: 10.1105/tpc.113.110072. (Western blot, Arabidopsis thaliana) Kunieda et al. (2008). NAC family proteins NARS1/NAC2 and NARS2/NAM in the outer integument regulate embryogenesis in Arabidopsis. Plant Cell. 2008 Oct;20(10):2631-42.doi: 10.1105/tpc.108.060160. (Western blot, Arabidopsis thaliana) Nakaune et al. (2005). A vacuolar processing enzyme, deltaVPE, is involved in seed coat formation at the early stage of seed development. Plant Cell. 2005 Mar;17(3):876-87. doi: 10.1105/tpc.104.026872. (Immunofluorescence, Immunolocalisation by electron microscopy, Western blot, Arabidopsis thaliana)



Arabidopsis thaliana maturing siliques was freshly extracted to a crude extract with 2x SDS-sample buffer (+ 2ME) for SDS-PAGE and denatured with 4X SDS buffer at 95°C for 5 min. were separated on 15-20 % SDS-PAGE and blotted to PVDF membrane in wet system. Blot was blocked with 3 % skim milk/TBS-T, 1h/RT with agitation. Blot was incubated in the primary antibody at a dilution of 1: 5000 in TBS-T for 1h/RT. The antibody solution was decanted and the blot was washed 4 times for 10 min in TBS-T at RT with agitation. Blot was incubated in matching secondary antibody (anti-rabbit IgG horse radish peroxidase conjugated) diluted to 1:10 000 in for 1h/RT with agitation. The blot was washed as above and developed with a chemiluminescent detection reagent, following manufacture's recommendations.



Left panel: differential Interference Contrast Image
Right panel: Immunofluorescent staining
Material: developing seeds of *Arabidopsis thaliana*
Fixation: 7.2% (w/v) formaldehyde, 0.1% (v/v) Nonidet P-40, 10% (v/v) dimethyl sulfoxide, and 50 mM Na-phosphate buffer, pH 7.2 for 40 minutes.
Wash, 2x: TBS-T for 5 min, incubated in TBS-T containing 5% (w/v) Cellulase Onozuka R-10 and 2% (w/v) Pectolyase Y-23 for 20 min at 30°C
Was: 2x with TBS-T
Blocking: 30 min. in 2 % BSA in TBS-T
Primary antibody: 1: 500, 40 min.
Wash: 3x5 min. with TBS-T
Secondary antibodies: goat anti-rabbit AlexaFluor 488 conjugated
Wash: 3x 5 min. TBS-T and mounted