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

Product no AS20 4421

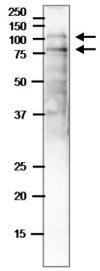
Anti-NAI2 | TSA1-like protein (ER lumen marker)

Product information

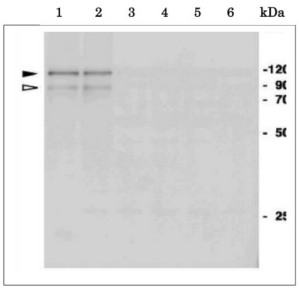
Immunogen	Purified recombinant NAI2 of *Arabidopsis thaliana,* residues 272-502 with a His tag, UniProt: Q9LSB4, TAIR: At3g15950
Host	Rabbit
Clonality	Polyclonal
Purity	Total IgG. Protein A purified in PBS, 50% glycerol. Filter sterilized.
Format	Liquid at 2 mg/ml.
Quantity	200 µg
Storage	Store at -20°C; 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

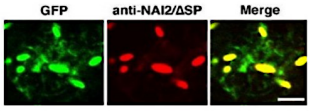
Recommended dilution	1: 1000 - 1: 3000 (IF), 1: 2000 - 1: 4000 (WB)
Expected | apparent MW	85 | 120 kDa
Confirmed reactivity	*Arabidopsis thaliana*
Predicted reactivity	Species of your interest not listed? Contact us
Not reactive in	No confirmed exceptions from predicted reactivity are currently known
Additional information	Signal peptide of 24 amino acids is removed from the mature protein
Selected references	Ueda et al. (2018).Endoplasmic Reticulum (ER) Membrane Proteins (LUNAPARKs) are Required for Proper Configuration of the Cortical ER Network in Plant Cells. Plant Cell Physiol. 2018 Oct 1;59(10):1931-1941. doi: 10.1093/pcp/pcy137. Yamada et al. (2013). Identification of two novel endoplasmic reticulum body-specific integral membrane proteins. Plant Physiol. 2013 Jan;161(1):108-20. doi: 10.1104/pp.112.207654. Yamada et al. (2008). NAI2 is an endoplasmic reticulum body component that enables ER body formation in Arabidopsis thaliana. Plant Cell . 2008 Sep;20(9):2529-40. doi: 10.1105/tpc.108.059345.



Arabidopsis thaliana 7 day-old seedlings were freshly extracted with 2x SDS-sample buffer (+ 2ME) for SDS-PAGE and denatured with 4X SDS buffer at 95°C for 5 min. Protein load/well is 10 µg. Sample was separated on 12.5 % SDS-PAGE and blotted to PVDF membrane using wet tank 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: 4000 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 recommendation.
Upper band is NAI2, while the lower band is a degradation product of NAI2 (Yamada et al. 2008).



Total protein was extracted from 20 *Arabidopsis thaliana* 7 day-old seedlings using 200 ml of 20 mM Tris-HCl pH 6.8, 40 % glycerol, 2 % SDS and 2 % ME and denatured with 4X SDS buffer at 95°C for 5 min. Samples was separated on 12.5 % SDS-PAGE and blotted using wet transfer to nitrocellulose membrane. 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: 2000 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 recommendation. Samples: Arabidopsis thaliana wild-type (1), Arabidopsis thaliana wild-type with GFP-h (2), mutant *nai2-1* (3), mutant *nai2-5* (4), mutant *nai2-3* (5), mutant *nai1-1* (6)



Immunofluorescence staining of NAI peotein in ER bodies.
Immunofluorescence analysis of NAI2 in 7-d-old GFP-h seedlings. Left panels: the ER-targeted GFP signals; middle panel: the NAI2 signals, which were detected by antibodies against NAI2/ΔSP, and Cy3-labeled second antibodies; right panel, the merged images. Bars = 10 mm.