

Product no **AS20 4421****NAI2 | TSA1-like protein (ER lumen marker)****Product information**

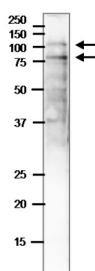
Immunogen	Purified recombinant NAI2 of <i>Arabidopsis thaliana</i> , residues 272-502 with a His tag, UniProt: Q9LSB4 , TAIR: At3g15950
Host	Rabbit
Clonality	Polyclonal
Purity	Total IgG. Protein A purified in PBS, 50% glycerol. Filter sterilized.
Format	Liquid at 2 mg/ml.
Quantity	200 µg
Storage	Store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

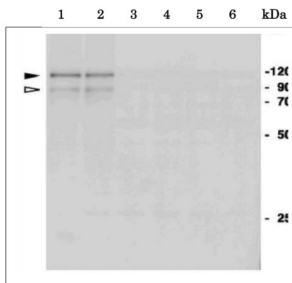
Selected references | [Ueda](#) et al. (2018). Endoplasmic Reticulum (ER) Membrane Proteins (LUNAPARKs) are Required for Proper Configuration of the Cortical ER Network in Plant Cells. *Plant Cell Physiol.* 2018 Oct 1;59(10):1931-1941. doi: 10.1093/pcp/pcy137.

[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.

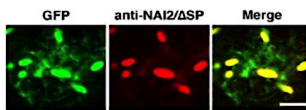
[Yamada](#) et al. (2008). NAI2 is an endoplasmic reticulum body component that enables ER body formation in *Arabidopsis thaliana*. *Plant Cell* . 2008 Sep;20(9):2529-40. doi: 10.1105/tpc.108.059345.



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 were 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 manufacturer'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 protein 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/ASP, and Cy3-labeled second antibodies; right panel, the merged images. Bars = 10 μm.