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Product no AS12 2365

Anti-CNX1/2 | CALNEXIN HOMOLOG 1/2

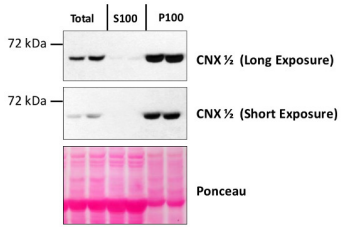
Product information

Immunogen	KLH-conjugated synthetic peptide derived from *Arabidopsis thaliana* CNX1 UniProt: P29402 TAIR: AT5G61790, CNX2 UniProt: Q38798, TAIR: AT5G07340. This peptide is NOT present in calreticulins.
Host	Rabbit
Clonality	Polyclonal
Purity	Immunogen affinity purified serum in PBS pH 7.4.
Format	Liquid
Quantity	50 µg
Storage	Aliquite upon arrival to avoid repeated freeze-thaw cycles and store -20°C; 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: 50 (IG), 1 : 2500 (WB)
Expected | apparent MW	CNX1 60.5 kD, processing aa 1-20, mature peptide 58.1 kD CNX2 60.5/61.4 kD, processing aa 1-25, mature peptides 57.6/58.6 kD
Confirmed reactivity	*Arabidopsis thaliana, Nicotiana tabacum, Petunia hybrida, Solanum lycopersicum*
Predicted reactivity	*Brassica napus, Coccomyxa suellipsoidea, Hordeum vulgare, Glycine max, Medicago truncatula, Oryza sativa, Petunia inflata, Physcomitrium patens, Picea sitcHensis, Pisum sativum, Populus trichocarpa, Ricinus communis, Stereum hirsutum, Zea mays, Vitis vinifera* Species of your interest not listed? Contact us
Not reactive in	*Chlamydomonas reinhardtii*
Additional information	Antibody can be used as a marker of microsmal membrane
Selected references	Wasag et al. (2924). Plant-specific calreticulin is localized in the nuclei of highly specialized cells in the pistil—new observations for an old hypothesis. Protoplasma . 2024 Jun 7. doi: 10.1007/s00709-024-01961-y. Skalický et al. (2023). Fluorescence-activated multi-organelle mapping of subcellular plant hormone distribution. Plant J. 2023 Dec;116(6):1825-1841.doi: 10.1111/tpj.16456. Epub 2023 Sep 8. Ekanayake et al. (2021) A. DYNAMIN-RELATED PROTEIN DRP1A functions with DRP2B in plant growth, flg22-immune responses, and endocytosis. Plant Physiol. 2021 Feb 3:kiab024. doi: 10.1093/plphys/kiab024. Epub ahead of print. PMID: 33564884. Ekanayake et al. (2021) A. DYNAMIN-RELATED PROTEIN DRP1A functions with DRP2B in plant growth, flg22-immune responses, and endocytosis. Plant Physiol. 2021 Feb 3:kiab024. doi: 10.1093/plphys/kiab024. Epub ahead of print. PMID: 33564884. Kramer et al. (2020). N6-methyladenosine and RNA secondary structure affect transcript stability and protein abundance during systemic salt stress in Arabidopsis. Plant Direct . 2020 Jul 24;4(7):e00239.doi: 10.1002/pld3.239. Collins et al. (2020). EPSIN1 Modulates the Plasma Membrane Abundance of FLAGELLIN SENSING2 for Effective Immune Responses . Plant Physiol. 2020 Feb 24. pii: pp.01172.2019. doi: 10.1104/pp.19.01172 Butler et al. (2019). Soybean resistance locus Rhg1 confers resistance to multiple cyst nematodes in diverse plant species. Phytopathology. 2019 Aug 12. doi: 10.1094/PHYTO-07-19-0225-R.

Application example



Total protein from Col-0 (wild-type) *Arabidopsis thaliana* were extracted with 50mM HEPES-KOH buffer containing 250 mM sucrose, 5% glycerol, 50 mM NaPP, 1 mM NaMo, 25 mM NaF, 10mM EDTA, 0.5% PVP, 3mM DTT, 1mM PMSF, 10uM Leupeptin & 10nM Calyculin, and then fractionated by ultracentrifugation at 100,000 x gravity for 30 min at 4°C into soluble (S100) and microsomal (P100) proteins as described in LaMontagne et al. (2016). Isolation of Microsomal Membrane Proteins from Arabidopsis thaliana. Current Protocols in Plant Biology 1:1-18. doi: 10.1002/cppb.20020. 30 µg proteins of total, S100 and P100 fractions were denatured at 37°C for 5 min, separated on a 7.5 % SDS-PAGE and

blotted 1h to nitrocellulose using tank transfer. Blots were blocked with 1x PBS (from Fisher Scientific BP665-1) + 0.1 %Tween 20 (PBS-T) + 5% milk for 1h at room temperature (RT) with agitation. Blot was incubated in the primary antibody at a dilution of 1: 2500 overnight at 4°C with agitation in 1x PBS-T + 5% milk. The antibody solution was decanted, and the blot was rinsed briefly once, then washed four times for 7 min in 1x PBS-T at RT with agitation. Blot was incubated in secondary antibody (anti-rabbit IgG horse radish peroxidase conjugated) diluted to 1:10 000 in 1x PBS-T + 5% milk for 2 hrs at RT with agitation. The blot was washed as above and developed for 4 min with Amersham ECL (RPN2106). Exposure time was 30 seconds and 2 min

Courtesy of Erica LaMontagne & Dr. Antje Heese (Division of Biochemistry, Interdisciplinary Plant Group (IPG) - University of Missouri; Columbia, MO, USA)