Agrisera
Part of Olink® Group

This product is **for research use only** (not for diagnostic or therapeutic use) **contact: support@agrisera.com**

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

Product no AS16 4037

CERK1 | Chitin elicitor receptor kinase 1

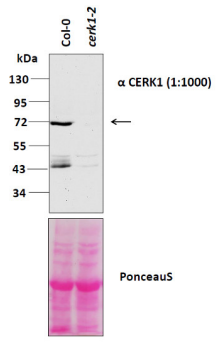
Product information

Immunogen	KLH-conjugated synthetic peptide derived from *Arabidopsis thaliana* RPS4 sequence, UniProt: A8R7E6, TAIR: At3g21630
Host	Rabbit
Clonality	Polyclonal
Purity	Immunogen affinity purified serum in PBS pH 7.4.
Format	Lyophilized
Quantity	50 µg
Reconstitution	For reconstitution add 50 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.
Additional information	This product can be sold containing proclin if requested

Application information

Recommended dilution	1: 1000 - 1: 3500 (WB)
Expected | apparent MW	67 kDa
Confirmed reactivity	*Arabidopsis thaliana*
Predicted reactivity	*Arabidopsis thaliana*
Not reactive in	*Nicotiana benthamiana, Solanum lycopersicum*
Selected references	Ngou et al. (2021) Mutual potentiation of plant immunity by cell-surface and intracellular receptors. Nature. 2021 Mar 10. doi: 10.1038/s41586-021-03315-7. Epub ahead of print. PMID: 33692545. Wang et al. (2021) Arabidopsis PUB2 and PUB4 connect signaling components of pattern-triggered immunity. New Phytol. 2021 Dec 17. doi: 10.1111/nph.17922. Epub ahead of print. PMID: 34918346

Application example



Total protein from 16-day old *Arabidopsis thaliana* Col-0 (wild-type) and cerk1-2 null mutant (Cao et al., 2014). Total protein was extracted using Buffer H (Heese et al., 2007; LaMontagne et al., 2016) except that 40 nM Calyculin was used. 70 µg of total protein was denatured at 65°C for 5 min, separated on an 8% SDS-PAGE and transferred for 1h using a tank transfer system to nitrocellulose membrane. Blots were blocked with 1x PBS (Fisher Scientific BP665-1) + 0.1 %Tween 20 (PBS-T) + 5% milk for 1.5h at room temperature (RT) with agitation. Blots were incubated with primary antibody at a dilution of 1: 1000 overnight at 4°C with agitation in 1x PBS-T + 5% milk. The antibody solution was decanted, and the blot washed four times (1x 5min and 3x 6min) in 1x PBS-T at RT with agitation. The blot was then incubated with secondary antibody (Goat anti Rabbit IgG (H&L)–HRP from Agrisera (AS09 602) diluted to 1:10,000 in 1x PBS-T + 5% milk for 4h at RT with agitation. The blot was washed as above and developed for 5 min with Amersham ECL (RPN2106). Exposure time was about 10 min.

Courtesy of Grant Mc Gowan, Gayani Ekanayke & Dr. Antje Heese, Division of Biochemistry, Interdisciplinary Plant Group (IPG), University of Missouri; Columbia, MO, USA.

References:

Agrisera
Part of Olink® Group

This product is **for research use only** (not for diagnostic or therapeutic use) **contact: support@agrisera.com**

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

- Cao, Y. et al. (2014). The kinase LYK5 is a major chitin receptor in Arabidopsis and forms a chitin-induced complex with related kinase CERK1. eLife 2014;3:e03766.
- Heese, A. et al. (2007). The receptor-like kinase SERK3/BAK1 is a central regulator of innate immunity in plants. PNAS. Vol. 104 no. 29 p. 12217–12222.
- 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