

Product no **AS10 720****Anti-PHOT1 | Phototropin-1****Product information**

Immunogen	KLH-conjugated synthetic peptide derived from known <i>Arabidopsis thaliana</i> PHOT1 O48963 , At3g45780
Host	Rabbit
Clonality	Polyclonal
Purity	Serum
Format	Lyophilized
Quantity	50 µl
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

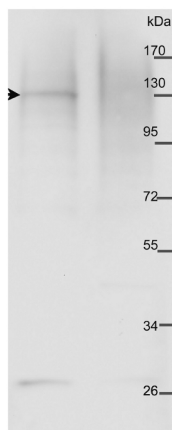
Recommended dilution	1 : 5000 (WB)
Expected apparent MW	111 132 kDa
Confirmed reactivity	<i>Arabidopsis thaliana</i>
Predicted reactivity	<i>Arabidopsis thaliana</i>
Not reactive in	<i>Cuscuta campestris</i> , <i>Oryza sativa</i>
Additional information	Information about <i>phot1</i> mutant, first named <i>nph1</i>:

- [Liscum & Briggs](#) (1995). Mutations in the NPH1 Locus of Arabidopsis Disrupt the Perception of Phototropic Stimuli. The Plant Cell, Vol. 7, 473-485.
- [Huala](#) et al. (1997). Arabidopsis NPH1: A Protein Kinase with a Putative Redox-Sensing Domain. Science 19: Vol. 278 no. 5346 pp. 2120-2123.
- [Lehmann](#) et al. (2011). Transitions of gene expression induced by short-term blue light. Plant Biology Volume 13, Issue 2, pages 349–361. Seeds of this mutant are available at [uNASC](#).

Recommended extraction protocol [Sakamoto and Briggs 2002](#).
Antibody incubation buffer: PBS with 0.05 % Tween20.

Selected references

- [Liang](#) et al. (2025). Histone Deacetylase 9 Modulates Phototropin 1 Acetylation Dynamics to Fine-Tune Phototropic Responses in Plants. Plant Commun. 2025 Jun 21:101424.doi: 10.1016/j.xplc.2025.101424.
- [Labuz](#) et al. (2021) Phototropin interactions with SUMO proteins. Plant Cell Physiol. 2021 Feb 17:pcab027. doi: 10.1093/pcp/pcab027. Epub ahead of print. PMID: 33594440.
- [Krzyszowiec](#) et al. (2020). Chloroplasts in C3 grasses move in response to blue-light. Plant Cell Rep . 2020 Oct;39(10):1331-1343.doi: 10.1007/s00299-020-02567-3. Epub 2020 Jul 13.
- [Labuz](#) et al. (2015). The impact of temperature on blue light induced chloroplast movements in Arabidopsis thaliana. Plant Science, doi:10.1016/j.plantsci.2015.07.013.
- [Eckstein](#) et al. (2015). Auxin and chloroplast movements. Physiol Plant. 2015 Oct 15. doi: 10.1111/ppl.12396.



80 µg of total protein from *Arabidopsis thaliana* wt Columbia (right lane) and *Arabidopsis thaliana phot1phot2* double mutant (left lane) were separated on **9% SDS-PAGE** and blotted 2h to **PVDF**. Blots were blocked immediately following transfer in PBS-T 5% milk for 1h at room temperature with agitation. Blots were incubated in the primary antibody at a dilution of 1: 5000 overnight at 4°C with agitation. The antibody solution was decanted and the blot was rinsed briefly, then washed 3 times for 5 min in PBS-T at room temperature with agitation. Blots were incubated in secondary antibody (anti-IgG horse radish peroxidase conjugated, from Agrisera [AS09.602](#)) diluted to 1:10 000 for 1h at room temperature with agitation. The blots were washed as above and developed with WestPico detection reagent (PIERCE) according to the manufacturers instructions. Exposure time was 300 seconds.