

Product no **AS07 220****PhyA | Phytochrome A****Product information**

**Immunogen** | KLH-conjugated synthetic peptide derived from conserved plant PhyA protein sequences including *Arabidopsis thaliana* UniProt:[P14712](#), TAIR:[At1g59070](#); peptide sequence is not present in other plant phytochrome forms (B-E)

**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** | In vivo pull down assay for PhyA and western blot analysis of eluted proteins is described in [Paik et al. \(2012\)](#). Phytochrome regulates translation of mRNA in the cytosol. PNAS 109 (4): 1335-1340.

**Application information**

**Recommended dilution** | 1 : 1000 (WB)

**Expected | apparent MW** | 124 kDa

**Confirmed reactivity** | *Arabidopsis thaliana*, *Arachis hypogaea* L., *Nicotiana benthamiana*, *Nicotiana tabacum*

**Predicted reactivity** | *Brassica rapa*, *Cardamine hirsuta*, *Daucus carota*, *Lathyrus sativus*, *Fragaria ananassa*, *Glycine max*, *Gossypium hirsutum*, *Hordeum vulgare*, *Lotus corniculatus*, *Medicago truncatula*, *Nicotiana benthamiana (PhyA1)*, *Nicotiana tabacum*, *Pisum sativum*, *Populus balsamifera*, *Ricinus communis*, *Solanum lycopersicum*

Species of your interest not listed? [Contact us](#)

**Not reactive in** | No confirmed exceptions from predicted reactivity are currently known

**Additional information** | Careful sample collection is advised to assure the best results with this antibody

**Selected references** | [Staudt et al. \(2023\)](#). EID1 promotes the response to canopy shade in *Arabidopsis thaliana* by repressing the action of phytochrome A. MicroPubl Biol. 2023 Dec 12:2023:10.17912/micropub.biology.001015.doi: 10.17912/micropub.biology.001015.

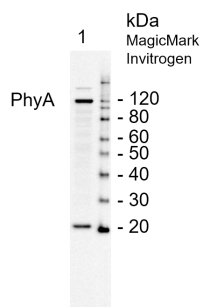
[Schwenk et al. \(2021\)](#) Uncovering a novel function of the CCR4-NOT complex in phytochrome A-mediated light signalling in plants. Elife. 2021 Mar 30;10:e63697. doi: 10.7554/eLife.63697. PMID: 33783355; PMCID: PMC8009681.

[Schenk et al. \(2021\)](#) Light-induced degradation of SPA2 via its N-terminal kinase domain is required for photomorphogenesis. Plant Physiology, 2021; kiab156, <https://doi.org/10.1093/plphys/kiab156>

[Menon et al. \(2019\)](#). *Arabidopsis* FAR-RED ELONGATED HYPOCOTYL 1 and FHY1-LIKE are not required for phytochrome A signal transduction in the nucleus. Plant Communications. Available online 9 November 2019, 100007.

[Agliaffa et al. \(2018\)](#). Geomagnetic field impacts on cryptochrome and phytochrome signaling. J Photochem Photobiol B. 2018 Aug;185:32-40. doi: 10.1016/j.jphotobiol.2018.05.027.

[Zhang et al. \(2018\)](#). Characterization of peanut phytochromes and their possible regulating roles in early peanut pod development. PLoS One. 2018 May 25;13(5):e0198041. doi: 10.1371/journal.pone.0198041.

**Application example**

**10 µg** of total protein extracted with PEB (AS08 300) from etiolated seedlings of *Arabidopsis thaliana* (1) was separated on **4-12% NuPage** (Invitrogen) LDS-PAGE and blotted 2h (30V) to **nitrocellulose**. Filter was blocked 1h with 2% low-fat **milk powder** in **TBS-T** (0.1% TWEEN 20) and probed with **anti-PhyA** (AS07 220, **1:1000**, 19.5h) and secondary anti-rabbit (**1:20000**, 1h) antibody (HRP conjugated) in TBS-T containing 2% low fat milk powder. Antibody incubations were followed by **washings in TBS-T** (15, +5, +5, +5 min). All steps were performed at **RT with agitation**. Signal was detected with chemiluminescent detection reagent, using a Fuji LAS-3000 CCD (300s, standard sensitivity).