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

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Product no AS07 220

Anti-PhyA | Phytochrome A

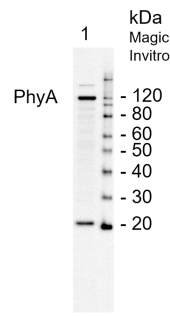
Product information

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, Dacucus carota, Lathyrus sativus, Fragaria ananassa, Glycine max, Gossyoium 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 adviced 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. Agliassa 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



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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).