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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:<u>P14712</u>, TAIR:<u>At1g59070</u>; 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.

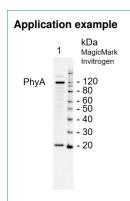
Schwenk et al. (2021) Uncovering a novel function of the CCR4-NOT complex in phytochrome A-mediated light signalling in plants. Elife. 2021 Mar 30;10:e63697. doi: 10.7554/eLife.63697. PMID: 33783355; PMCID: PMC8009681. Schenk et al. (2021) Light-induced degradation of SPA2 via its N-terminal kinase domain 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.





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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).