



HY5 (aD-16): sc-14056

BACKGROUND

Arabidopsis development is mediated by several environmental stimuli. Light plays an important role in many developmental processes, including photosynthesis, chloroplast biogenesis, leaf initiation, and floral induction. Light-dependent development, called photomorphogenesis, relies heavily on the action of five phytochromes, PhyA, B, C, D, and E, which are involved in photoperiod sensing and the shade avoidance syndrome. These phytochromes are partially regulated by transcriptional repressors of photomorphogenic development, such as COP1 and COP9. COP1 also negatively regulates the 30 kDa bZIP transcription factor, HY5, by targeting it for degradation via the 26S proteasome under dark conditions. However, upon light perception, COP1 is excluded from the nucleus, which permits HY5 accumulation. HY5 is able to promote photomorphogenesis by positively regulating the transcription of light-inducible genes involved in cell elongation, cell proliferation and chloroplast development.

REFERENCES

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SOURCE

HY5 (aD-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of HY5 of *Arabidopsis Thaliana* origin.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-14056 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

HY5 (aD-16) is recommended for detection of HY5 of *Arabidopsis Thaliana* and *Lycopersicon esculentum* origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.