



# Rabbit anti-Arabidopsis thaliana COP1 (Middle region) Polyclonal Antibody (CABT-Z049R)

This product is for research use only and is not intended for diagnostic use.

## PRODUCT INFORMATION

| Immunogen          | Antibodies were produced by immunizing animals with a GST-fusion protein containing the middle region of arabidopsis thaliana COP1.                               |
|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Isotype            | IgG                                                                                                                                                               |
| Source/Host        | Rabbit                                                                                                                                                            |
| Species Reactivity | Arabidopsis thaliana                                                                                                                                              |
| Purification       | Antigen affinity purification                                                                                                                                     |
| Conjugate          | Unconjugated                                                                                                                                                      |
| Applications       | WB Recommended dilution: WB: 1:1,000-1:3,000 (detect endogenous protein*)                                                                                         |
| Molecular Weight   | Predicted M.W.: 76 kDa; Observed M.W.: 82 kDa                                                                                                                     |
| Preparation        | Rabbit polyclonal antibodies were produced by immunizing animals with a GST-fusion protein containing the middle region of arabidopsis thaliana COP1 (At2g32950). |
| Format             | Liquid                                                                                                                                                            |
| Concentration      | Lot specific                                                                                                                                                      |
| Size               | 100 μΙ                                                                                                                                                            |
| Buffer             | Supplied in 1 x PBS (pH 7.4), 100 ug/ml BSA, 40% Glycerol, 0.01% NaN3.                                                                                            |
| Preservative       | 0.01% NaN3                                                                                                                                                        |

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| Storage | Store at -20°C. Stable for 6 months from date of receipt. |
|---------|-----------------------------------------------------------|
| Ship    | Wet ice                                                   |

#### **BACKGROUND**

#### Introduction

Constitutive photomorphogenesis protein 1 (COP1) is an E3 ubiquitin-protein ligase that acts as a repressor of photomorphogenesis and as an activator of etiolation in darkness. E3 ubiquitin ligases accept ubiquitin from an E2 ubiquitin-conjugating enzyme in the form of a thioester and then directly transfers the ubiquitin to targeted substrates. COP1 represses photomorphogenesis in darkness by mediating ubiquitination and subsequent proteasomal degradation of light-induced transcription factors such as HY5, HYH and LAF1. Cop1 also down-regulates MYB21, probably via ubiquitination process. Light stimuli abrogate the repression of photomorphogenesis, possibly due to its localization to the cytoplasm. COP1 could play a role in switching between skotomorphogenetic and photomorphogenetic pathways.

Keywords

E3 ubiquitin-protein ligase COP1; Constitutive photomorphogenesis protein 1

### **GENE INFORMATION**

| Gene Name      | COP1          |
|----------------|---------------|
| Entrez Gene ID | <u>817857</u> |
| UniProt ID     | <u>P43254</u> |