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## **HYL1 (N) Antibody, Rabbit Polyclonal**

**Cat#:** R3442-1

**Quantity:** 100 ul

**Predicted | Observed M.W.:** 46 kDa

**Lot#:** Refer to vial

**Application:** WB

**Uniprot ID:** O04492

### **Background:**

HYL1 is a double-stranded RNA-binding protein involved in RNA-mediated post-transcriptional gene silencing (PTGS). HYL1 functions in the microRNAs (miRNAs) biogenesis by assisting DICER-LIKE 1 (DCL1) in the accurate processing from primary miRNAs (pri-miRNAs) to miRNAs in the nucleus. HYL1 forms a complex with SERRATE (SE) and DCL1 to promote accurate processing of pri-miRNAs by DCL1. HYL1 binds and assist DCL1 for accurate processing of precursor miRNAs (pre-miRNA). HYL1 is indirectly involved in the production of trans-acting small interfering RNAs (ta-siRNAs) derived from the TAS1, TAS2 or TAS3 endogenous transcripts by participating in the production of their initiating miRNAs. HYL1 is involved with argonaute 1 (AGO1) in the guide strand selection from miRNA duplexes, presumably by directional loading of the miRNA duplex (guide strand and passenger strand) onto the RNA-induced silencing complex (RISC) for passenger strand degradation. HYL1 does not participate in sense transgene-induced post-transcriptional gene silencing (S-PTGS). HYL1 is involved in several plant development aspects and response to hormones through its role in miRNAs processing.

### **Other Names:**

Double-stranded RNA-binding protein 1, Protein HYPONASTIC LEAVES 1, dsRNA-binding protein 1, AtDRB1, DRB1, At1g09700, F21M12.9

### **Source and Purity:**

Rabbit polyclonal antibodies were produced by immunizing animals with a GST-fusion protein containing the N-terminal region of *arabidopsis thaliana* HYL1 (AT1G09700). Antibodies were purified by affinity purification using immunogen.

### **Storage Buffer and Condition:**

Supplied in 1 x PBS (pH 7.4), 100 ug/ml BSA, 40% Glycerol, 0.01% NaN<sub>3</sub>. Store at -20 °C. Stable for 6 months from date of receipt.

### **Tested Applications:**

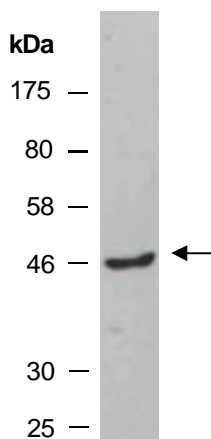
WB: 1:500-1:2,000 (detect endogenous protein\*)

\*: The apparent protein size on WB may be different from the calculated M.W. due to modifications.

**Species Specificity:**

Arabidopsis thaliana

**Product Data:**



**Fig 1.** Western blot analysis of total protein extracts from wild type arabidopsis leaves, using anti-HYL1 (N) (R3442-1) at RT for 2 h.