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ABI4 (C) Antibody, Rabbit Polyclonal

Cat#: R3470-2

Quantity: 100 ul

Predicted | Observed M.W.: 36 | 55, 76 kDa

Lot#: Refer to vial

Application: WB

Uniprot ID: A0MES8

Background:

ABI4 is a transcription regulator that probably binds to the GCC-box pathogenesis-related promoter element. ABI4 also binds to the S-box (5'-CACTTCCA-3') photosynthesis-associated nuclear genes-related (PhANGs-related) promoter element, thus acts as a transcription inhibitor. ABI4 is involved in the regulation of gene expression by stress factors and by components of stress signal transduction pathways. ABI4 confers sensitivity to abscisic acid (ABA), and regulates the ABA signaling pathway during seed germination, upon nitrate-mediated lateral root inhibition, in hexokinase-dependent sugar responses (including feed-back regulation of photosynthesis and mobilization of storage lipid during germination), and in response to osmotic stress mediated by NaCl, KCl or mannitol. ABI4 plays a role in sucrose sensing or signaling, especially at low fluence far red light. AABI4 is also involved in plant response to glucose treatment, especially at low concentration and in young seedlings. ABI4 is required for the trehalose-mediated root inhibition and starch accumulation in cotyledons, probably by inhibiting starch breakdown. However, ABI4 seems to not be involved in sugar-mediated senescence. In addition, ABI4 is required for the ABA-dependent beta-amino-butyric acid (BABA) pathway.

Other Names:

Ethylene-responsive transcription factor ABI4, ERF ABI4, Protein ABSCISIC ACID INSENSITIVE 4, Protein GLUCOSE INSENSITIVE 6, Protein IMPAIRED SUCROSE INDUCTION 3, Protein SALOBRENO 5, Protein SUCROSE UNCOUPLED 6, Protein SUGAR INSENSITIVE 5, ERF052, GIN6, ISI3, SAN5, SIS5, SUN6, At2g40220, T7M7.16

Source and Purity:

Rabbit polyclonal antibodies were produced by immunizing animals with a GST-fusion protein containing the C-terminal region of *arabidopsis thaliana* ABI4 (AT2G40220). 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% NaN₃. Store at -20 °C. Stable for 6 months from date of receipt.

Species Specificity:

Arabidopsis thaliana

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.

Product Data:

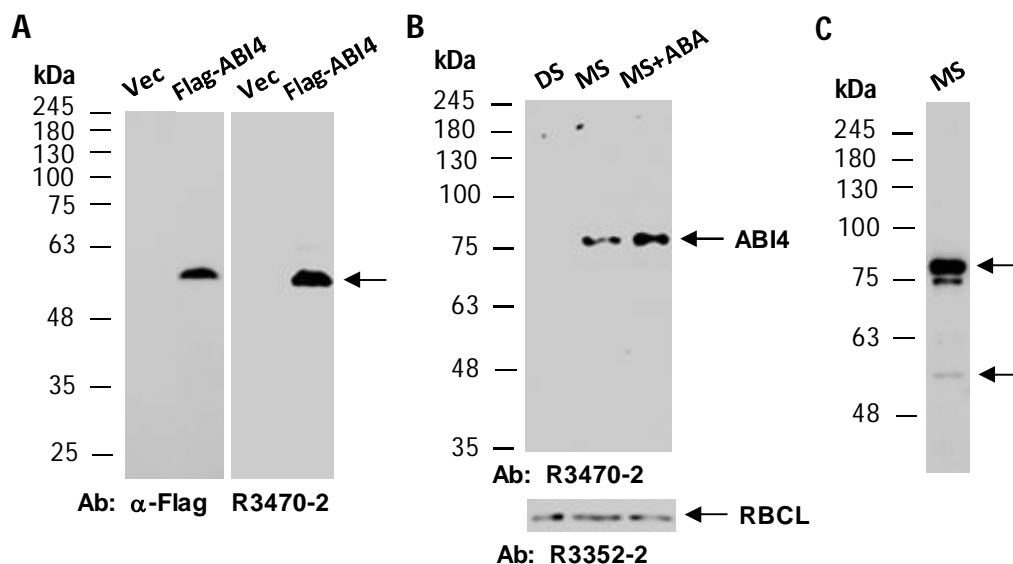


Fig 1. **A)** Western blot of protein extracts from human 293T cells transfected with a vector control (Vec) or a vector encoding Flag-tagged Arabidopsis ABI4 (Flag-ABI4), using the indicated Abs at RT for 2 hrs. **B)** Western blot of 25ug of protein extracts from wild type Arabidopsis dry seeds (DS) or germinating seeds in MS medium (MS) or in MS medium with 10uM abscisic acid (MS + ABA) for 30 hrs, using anti-ABI4 (C) (R3470-2) at RT for 2 hrs. The same filter was reprobed with anti-RBCL (C) (R3352-2) as the loading control. **C)** Same as in **B** except 70ug of protein extract from wild type Arabidopsis germinating seeds in MS medium (MS) was analyzed. ABI4 in germinating seeds appears to migrate largely as a dimer or a modified form of 76kD, while a minor band of 55kD that shows the similar size with the ABI4 protein in transfected 293T cells was also detectable when a larger amount of protein extract was analyzed.