product AS11 1627
RBR1 | Retinoblastoma related protein

product information

**Background**
The retinoblastoma protein Rb is considered to be a key regulator of G1/S phase transition by blocking S phase entry and cell growth. Plant retinoblastoma-related (RBR) proteins share a homology with the human tumour suppressor retinoblastoma (pRb) protein. RBR protein functions are controlled by phosphorylation and protein-protein interactions. Short name: AIRBR

**Immunogen**
Recombinant C-terminal fragment consisting of 236 amino acids of Arabidopsis thaliana retinoblastoma protein Q9LKZ3, locus At3g12280

**Host**
Chicken

**Clonality**
Polyclonal

**Purity**
Total IgY

**Format**
Liquid in PBS, pH 8.5 with 0.02 % sodium azide

**Quantity**
2 x 50 µl

**Storage**
Store at 4°C. Upon arrival please, remember to spin tubes briefly prior to opening them to avoid any losses that might occur from material adhering to the cap or sides of the tubes.

**Tested applications**
Chromatin IP (ChIP), Immunoprecipitation (IP), Western Blot (WB)

**Related products**
Collection of antibodies for plant developmental biology
Plant protein extraction buffer
Secondary antibodies

**Expected | apparent MW**
Arabidopsis thaliana, Medicago sativa

**Confirmed reactivity**
dicots: Camellia sinensis, Chenopodium rubrum, Pisum sativum, Scutelaria baicalensis, monocots: Cocos nucifera, Hordeum vulgare, Zea mays, Oryza sativa, trees: Populus tremula

**Not reactive in**
Chlamydomonas reinhardtii

**Additional information**
Total IgY concentration is 30.8 mg/ml

Application information

**Recommended dilution**
1 : 2000 (WB), 2µl (IP)

**Expected | apparent MW**
112 kDa

**Confirmed reactivity**
Arabidopsis thaliana, Medicago sativa

**Predicted reactivity**
dicots: Camellia sinensis, Chenopodium rubrum, Pisum sativum, Scutelaria baicalensis, monocots: Cocos nucifera, Hordeum vulgare, Zea mays, Oryza sativa, trees: Populus tremula

**Not reactive in**
Chlamydomonas reinhardtii

**Additional information**
Antibody is not suitable for immunolocalization.

Methanol concentration in a transfer buffer can be considerably reduced or for a better transfer of high MW proteins (even with PVDF membrane).

For immunoprecipitation start with 2 µl and titrate it depending upon your experimental conditions. Please note that you work with a total IgY fraction, which means that it will contain between 40-60 µg of total IgY (directed not only against retinoblastoma) therefore all of this IgY needs to be captured by the anti-IgY matrix.

As control pre-serum for IP this product can be used, total, pre-immune IgY.

**Selected references**
Cheng et al. (2013). Down-regulation of multiple CDK inhibitor ICK/KRP genes up-regulates E2F pathway and
increases cell proliferation, organ and seed sizes in Arabidopsis. Plant J. May 7.

Application example

35 µg of total proteins from Arabidopsis thaliana Col-0 cell suspension culture (1) or one week old seedlings (2) as well as 3.5ng of purified GST-RBR1 fusion protein (3) were separated on 8% Laemmli SDS polyacrylamide gels and blotted onto PVDF membrane overnight. Filters were blocked in 5% milk powder in TBS-0.05% Tween 20 (TBS-T) for 2 hours then probed with anti-RBR1 antibody (1:6000, 2 hours at RT) and HRP-conjugated rabbit anti-chicken IgY (PIERCE) secondary antibody (1: 20000, 1 hour at RT) in TBS-T containing 5% milk powder. After each antibody incubation steps filters were washed with TBS-T, TBS-T containing 2% milk powder, TBS-T for 10 min each on a rocking platform. Signal was developed with Super Signal West Pico chemiluminescent substrate (PIERCE) and visualized by exposing to a film (Agfa Cronex 5) for 5 min.

Courtesy Dr. Laszlo Bako, Umeå Plant Science Center, Sweden