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: AtRBR

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

Application information

Recommended dilution

2µl (IP), 1 : 2000 (WB)

Expected | apparent MW

112 kDa

Confirmed reactivity

Arabidopsis thaliana, Medicago sativa

Predicted reactivity

Camellia sinensis, Chenopodium rubrum, Cocos nucifera, Hordeum vulgare, Oryza sativa, Pisum sativum, Populus tremula, Scutelaria baicalensis, Zea mays

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 3.5 ng 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 (PIERCÉ) 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 (PIERCÉ) and visualized by exposing to a film (Agfa Cronex 5) for 5 min.

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