

# RbcL | Rubisco large subunit, form I, ALP-conjugated (40 µg)

Cat PA00374

Size 40 µg

## Host

Rabbit

## Clonality

Polyclonal

## Confirmed reactivity

*Arabidopsis thaliana*, *Apium graveolens*, *Artemisia annua*, *Baculogypsina sphaerulata* (benthic foraminifer), *Bienertia sinuspersici*, *Cicer arietinum*, *Chlamydomonas raudensis*, *Chlamydomonas reinhardtii*, *Colobanthus quitensis* Kunt Bartl, *Cyanophora paradoxa*, *Cylindrospermopsis raciborskii* CS-505, *Emiliana huxleyi*, *Euglena gracilis*, *Fraxinus mandshurica*, *Fucus vesiculosus*, *Glycine max*, *Gonyaulax polyedra*, *Guzmania hybrid*, *Heterosigma akashiwo*, *Karenia brevis* (C.C.Davis) s) G.Hansen & Ø.Moestrup (Wilson isolate), *Liquidambar formosana*, *Micromonas pusilla*, *Nicotiana benthamiana*, *Physcomitrium patens*, *Porphyra sp.*, *Schima superba*, *Stanleya pinnata*, *Spinacia oleracea*, lichens, *Symbiodinium sp.*, *Synechococcus* PCC 7942, *Thalassiosira pseudonana*, *Thermosynechococcus elongatus*, *Prochlorococcus sp.* (surface and deep water ecotype), *Triticum aestivum*, dinoflagellate endosymbionts (genus *Symbiodinium*), extreme acidophilic verrucomicrobial methanotroph *Methylacidiphilum fumarolicum* strain SolV, *Thalassiosira punctigera*, *Vitis vinifera*

## Immunogen

KLH-conjugated synthetic peptide conserved across all known plant, algal and (cyano)bacterial RbcL protein sequences (form I L8S8 and form II L2), including *Arabidopsis thaliana* AtCg00490, *Hordeum vulgare* P05698, *Oryza sativa* P0C510, *Chlamydomonas reinhardtii* P00877, *Synechococcus* PCC 7920 A5CKC5

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## Purity

Immunogen affinity purified serum in PBS pH 7.4.

## Format

Liquid

## Storage

Store at 4°C for 12-18 months. A preservative may be added for long time storage up to 2 years.

## Application

Western blot (WB)

## Recommended dilution

1 : 5000-10 000 (WB)

## Expected | apparent MW

52.7 kDa (*Arabidopsis thaliana*), 52.5 kDa (cyanobacteria), 52.3 (*Chlamydomonas reinhardtii*)

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**FOR RESEARCH OR FURTHER MANUFACTURING USE ONLY**

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## Predicted reactivity

Alpha proteobacteria, Algae (brown and red), Dicots, Beta-proteobacteria, Conifers, Cryptomonads, Cyanobacteria (prochlorophytes), Gamma-proteobacteria, Liverworts, Monocots, Mosses, *Suaeda glauca*, *Welwitschia*; *Nannochloropsis sp.*

## Not reactive in

No confirmed exceptions from predicted reactivity are currently known

## Additional information

Anti-RbcL can be used as a cellular [compartment marker] of plastid stroma (cytoplasm in cyanobacteria) and detects RbcL protein from 31,25 fmoles. As both forms (I and II) are detected it is suitable for work with samples from Dinoflagellates, Haptophytes and Ochrophytes (diatoms, Raphidophytes, brown algae) as well as higher plants. This antibody together with Agrisera Rubisco protein standard is very suitable to quantify Rubisco in plant and algal samples

## Description

Rubisco(ribulose-1, 5-diphosphate carboxylase/oxygenase) catalyzes the rate-limiting step of carbon dioxide fixation in photosynthetic organisms. It shares a clear homology with purple bacteria and flowering plants and consists of two protein subunits, each with eight copies. In plants and green algae, the large subunit (~55 kDa) is encoded by the chloroplast *rbcl* gene, and the small subunit (15 kDa) is encoded by a family of nuclear red cell genes.

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