

product **AS07 218**
Rubisco | 557 kDa hexadecamer

product information

background	Rubisco (Ribulose-1,5-bisphosphate carboxylase/oxygenase) catalyzes the rate-limiting step of CO ₂ fixation in photosynthetic organisms. It is demonstrably homologous from purple bacteria to flowering plants and consists of two protein subunits, each present in 8 copies. In plants and green algae, the large subunit (~55 kDa) is coded by the chloroplast <i>rbcl</i> gene, and the small subunit (15 kDa) is coded by a family of nuclear <i>rbcs</i> genes.
immunogen	purified 557 kDa hexadecamer Rubisco protein complex from <i>Spinacia oleracea</i> (SIGMA-ALDRICH R-8000), UniProt: P00875 and Q43832
antibody format	rabbit polyclonal serum lyophilized
quantity	200 µl for reconstitution add 200 µl of sterile water.
storage	store lyophilized/reconstituted at -20°C; once reconstituted make aliquots to avoid repeated freeze-thaw cycles. Please, remember to spin tubes briefly prior to opening them to avoid any losses that might occur from lyophilized material adhering to the cap or sides of the tubes.
tested applications	western blot (WB), immunolocalization (IL)
related products	AS03 037 anti-RbcL (Rubisco large subunit) form I and II rabbit antibody, most sold Agrisera Rubisco antibody AS01 017S Rubisco protein standard for quantitation or positive control AS01 017 anti-RbcL (Rubisco large subunit) form I hen antibody AS07 259 anti-RbcS Rubisco small subunit (SSU) AS07 222 anti-RbcS Rubisco small subunit (SSU) from pea
additional information	to be added when available

application information

recommended dilution	1:10 000 - 1:20 000 on 0.5-10 µg total cellular protein/lane and standard ECL (WB). 1: 500 (IL)
expected apparent MW	53-55 53-55 kDa
confirmed reactivity	<i>Arabidopsis thaliana</i> , <i>Chlamydomonas reinhardtii</i> , <i>Glycine max</i> , <i>Manihot esculenta</i> Crantz, <i>Physcomitrella patens</i> , <i>Pisum sativum</i> , <i>Populus sp.</i> , <i>Salsola laricifolia</i> , <i>Solanum tuberosum</i> , <i>Spinacia oleracea</i> , <i>Synechocystis sp. PCC 6803</i> , <i>Synechococcus sp. PCC7942</i> , <i>Zea mays</i>
predicted reactivity	dicots including: <i>Begonia sp.</i> , <i>Daucus carota</i> and others
not reactive in	no confirmed exceptions from predicted reactivity known in the moment
additional information	RbcS subunit is not detected by this antibody
selected references	Wen and Zhang (2014). <i>Salsola laricifolia</i>, another C₃–C₄ intermediate species in tribe Salsoleae s.l. (Chenopodiaceae). Photosynth Res. 2014 Sep 17. (immunolocalization) Feifei et al. (2014). Comparison of Leaf Proteomes of Cassava (<i>Manihot esculenta</i> Crantz) Cultivar NZ199 Diploid and Autotetraploid Genotypes. PLoS One. 2014 Apr 11;9(4):e85991. doi: 10.1371/journal.pone.0085991. eCollection 2014.

This product is **for research use only** (not for diagnostic or therapeutic use)

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