

product **AS06 141**
PC | plastocyanin

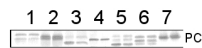
product information

background	Plastocyanin (PC) is a small Cu protein and a mobile electron carrier in the lumen of the thylakoids. PC interacts with the B/F complex and Photosystem I. Alternative name: DNA-damage-repair/toleration protein DRT112.
immunogen	purified native plastocyanin from <i>Spinacia oleracea</i> P00289
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), immunogold (IG)
additional information	cellular [compartment marker] of chloroplast thylakoid lumen

application information

recommended dilution	1:2000 with alkaline phosphatase (WB), 1: 100 (IG)
expected apparent MW	10 kDa
confirmed reactivity	<i>Arabidops thaliana</i> , <i>Brassica juncea</i> , <i>Heliantus annuus</i> , <i>Nicotiana tabacum</i> , <i>Oryza sativa</i> , <i>Pisum sativum</i> , <i>Spinacia oleracea</i> , <i>Solanum tuberosum</i> , <i>Zea mays</i>
predicted reactivity	dicots <i>Ricinus communis</i> , <i>Solanum lycopersicum</i> , monocots including <i>Hordeum vulgare</i> , moss <i>Physcomitrella patens</i>
not reactive in	no confirmed exceptions from predicted reactivity known in the moment
additional information	plastocyanin runs aberrant due to negative charge at 12-19 kDa on SDS-PAGE depending upon the system used. in 15 % gel the protein will run closer to its true MW than in 12 % gel. In some cases PC can be very acidic and run at twice of its MW. PC1 runs closer to 14 kDa while PC2 runs closer to 19 kDa. For good resolution adding fresh DTT to the sample buffer is recommended. PC2 is generally more abundant and it increases with Cu feeding. PC1 is expressed first after etiolated seedlings are placed in the light.
selected references	Abdel-Ghany et al. (2005) Two P-type ATPases are required for copper delivery in <i>Arabidopsis thaliana</i> chloroplasts. Plant Cell 17 1233-1251

application example



10 µg of total protein
from (1) *Arabidopsis thaliana*, (2) *Brassica juncea*, (3) *Zea mays*, (4) *Oryza sativa*, (5) *Solanum lycopersicum*, (6) *Nicotiana tabacum*, (7) *Helianthus annuus* were separated on SDS-PAGE and blotted to **nitrocellulose**.

Filters were probed with anti-PC antibody (AS06 141, 1:2000). Signal was developed using alkaline phosphatase conjugated secondary antibody. Each sample was run in duplicate. Signal was developed using alkaline conjugated secondary antibody.