

product **AS07 219**
CCS | chloroplatic copper chaperone for SOD

product information

background	Copper is an essential element for function of chloroplasts. It is a co-factor for superoxide dismutase (SOD) and for plastocyanin. Copper is transported to chloroplasts with a help of Copper Chaperones, which carry out the delivery of copper from transporters to targets. In the last step chaperone binds to a copper dependent enzyme and inserts the copper ions into its active site. The Arabidopsis thaliana gene AtCCS encodes a copper chaperone for SOD. The AtCCS protein was localized to chloroplasts where it may supply copper to the stromal Cu/ZnSOD.
immunogen	The antibody was raised to the Arabidopsis thaliana full length CCs protein Q4ZJ15 , fused to His-tag. Overexpressed using pET28a vector in BL21 E. coli (Cd+) and purified using His-column. After purification, the His tag was cleaved using thrombin and then the protein was purified using Resource-Q column connected to HPLC.
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)
additional information	to be added when available

application information

recommended dilution	1 : 1000 with alkaline phosphatase (WB)
expected apparent MW	33.8 37 kDa (<i>Arabidopsis thaliana</i>)
confirmed reactivity	<i>Arabidopsis thaliana</i> , <i>Brassica juncea</i> , <i>Oryza sativa</i> , <i>Zea mays</i>
predicted reactivity	dicots including: <i>Glycine max</i> , <i>Solanum tuberosum</i>
not reactive in	no confirmed exceptions from predicted reactivity known in the moment
additional information	to be added when available
selected references	Abdel-Ghany et al (2005). AtCCS is a functional homolog of the yeast copper chaperone Ccs1/Lys7. FEBS Lett. 11:2307-12.

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Antibodies for research

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

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