

product **AS08 298**

CSP41b | ribosome associated endonuclease (CRB)

product information

background	CSP41b (CRB, RAP38 ortholog, gb5f) is a chloroplast stem-loop-binding, ribosome-associated endonuclease. This protein is involved in 23S rRNA metabolism and highly conserved in photosynthetic organisms including angio- and gymnosperms, green algae, and cyanobacteria.
immunogen	<u>KLH</u> -conjugated synthetic peptide derived from CSP41b protein sequence of <i>Arabidopsis thaliana</i> <u>Q9SA52</u>
antibody format	rabbit polyclonal affinity purified serum, in PBS pH 7.4 lyophilized
quantity	200 µg 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 standard ECL (WB)
expected apparent MW	42 39 kDa
confirmed reactivity	<i>Arabidopsis thaliana</i> , <i>Pisum sativum</i> , <i>Physcomitrella patens</i>
predicted reactivity	dicots including: <i>Vitis vinifera</i> , monocots including: <i>Oryza sativa</i> , <i>Zea mays</i> , trees: <i>Picea sitchensis</i> , <i>Populus</i> sp.,
not reactive in	no confirmed exceptions from predicted reactivity known in the moment
additional information	to be added when available
selected references	<u>Lang</u> , E.G.E., S.J. Mueller, S.N.W. Hoernstein, J. Porankiewicz-Asplund, M. Vervliet-Scheebaum, R. Reski (2010). Simultaneous isolation of pure and intact chloroplasts and mitochondria from moss as basis for sub-cellular proteomics. Plant Cell Reports, DOI: 10.1007/s00299-010-0935-4. (open source) <u>Belioni & Mayfield</u> (2008). Arabidopsis thaliana mutants reveal a role for CSP41a and CSP41b, two ribosome-associated endonucleases, in chloroplast ribosomal RNA metabolism. Plant Mol Biol. 67:389-401.

[Hassidim](#) et al. (2007). Mutations in CHLOROPLAST RNA BINDING provide evidence for the involvement of the chloroplast in the regulation of the circadian clock in Arabidopsis. Plant J. 51:551-562.

application information

10 µg of total leaf protein from *P.sativum* (1) was separated on 4-12% NuPage (Invitrogen) and blotted on nitrocellulose. Molecular marker was MagicMark (Invitrogen). Filters were blocked overnight in TBST containing 5 % milkpowder and incubated with 1:1000 anti-CSP41b antibody (AS08 298, 1h). After incubation with 1:10000 secondary HRP coupled anti-rabbit antibody (1h) signals were visualized with standard ECL (GE Healthcare).