

product **AS08 282**
Lhc1 | PS 1 light harvesting holo-complex

product information

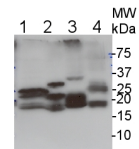
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|-------------------------------|--|
| background | The light-harvesting system of higher plant is composed of pigment-binding proteins belonging to the Lhc multigenic family. Lhc polypeptides are able to bind chlorophyll a, chlorophyll b, and xanthophyll molecules in a suitable structural and dynamic mutual arrangement, ensuring high efficiency of energy transfer processes involved in light-harvesting and photoprotection. |
| immunogen | purified LHC complex from <i>Porphyridium cruentum</i> |
| 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

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| recommended dilution | 1: 1000 with standard ECL (WB) |
| expected apparent MW | 20-25 kDa |
| confirmed reactivity | <i>Aureococcus anophagefferens</i> , <i>Guillardia theta</i> , <i>Heterosigma akashiwo</i> , <i>Thalassiosira pseudonana</i> , <i>Porphyridium cruentum</i> |
| predicted reactivity | diatoms |
| not reactive in | no confirmed exceptions from predicted reactivity known in the moment |
| additional information | strongly reactive to 7 Lhc1 light harvesting polypeptides of <i>P. cruentum</i> , reactivity to a few Lhc2 polypeptides of spinach is very low |
| selected references | Tan et al. (1995). Decrease of polypeptides in the PS I antenna complex with increasing growth irradiance in the red alga <i>Porphyridium cruentum</i> . Photosyn. Research 45:1. Wolfe et al. (1994) Evidence for a common origin of chloroplasts with light-harvesting complexes of different pigmentation. Nature 367:566 |

application example

2 µg of total chlorophyll/lane of total cell extract from **(1)** *Thalassiosira pseudonana*, **(2)** *Heterosigma akashiwo*, **(3)** *Guillardia theta*, **(4)** *Aureococcus anophagefferens*, extracted with Agrisera protein extraction buffer **PEB**, were separated on 13-17% SDS-PAGE and blotted 2h to nitrocellulose. membranes were blocked 1h with 5% low-fat milk powder in PBS-T (0.1% TWEEN 20) and probed with anti-Lhc1 (AS08 282, 1:6000, 1h) and secondary anti-rabbit (1:5000, 1 h) antibody (HRP conjugated, Bio-rad) in PBS-T containing 2% low fat milk powder. Antibody incubations were followed by washings in PBS-T (15, +5, +5, +5 min). All steps were performed at RT with agitation. Signal was detected with standard ECL. Exposure time was 2 min.



Courtesy of Meriem Alami and Beverley Green.