

Product no **AS06 119****Anti-Cyt f | Cytochrome f protein (PetA) of thylakoid Cyt b6/f-complex (algal)****Product information**

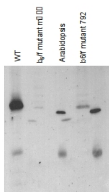
<b>Immunogen</b>	GST fusion to cytochrome f from <i>Chlamydomonas reinhardtii</i> <a href="#">P23577</a>
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Purity</b>	Serum
<b>Format</b>	Lyophilized
<b>Quantity</b>	50 µl
<b>Reconstitution</b>	For reconstitution add 50 µl of sterile water
<b>Storage</b>	Store lyophilized/reconstituted at -20°C; once reconstituted make aliquots to avoid repeated freeze-thaw cycles. Please remember to spin the tubes briefly prior to opening them to avoid any losses that might occur from material adhering to the cap or sides of the tube.
<b>Additional information</b>	Contains 0.02 % sodium azide as preservative

**Application information**

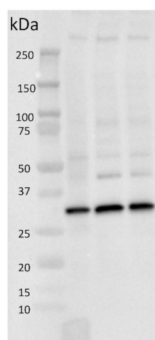
<b>Recommended dilution</b>	1 : 2000-1 : 50 000 (WB)
<b>Expected   apparent MW</b>	34   31-32 kDa
<b>Confirmed reactivity</b>	<i>Arabidopsis thaliana</i> , <i>Chlamydomonas reinhardtii</i> , <i>Chlorella vulgaris</i> , <i>Colobanthus quitensis</i> Kunt Bartl, <i>CRaterostigma pumilum</i> , <i>Hordeum vulgare</i> , <i>Nannochloropsis gaditana</i> , <i>Nicotiana tabacum</i> , <i>Nostoc</i> sp. PCC7120, <i>Physcomitrium patens</i> , <i>Selaginella martensi</i> , <i>Synechocystis</i> sp. 6803 substrain PCC-M, <i>Ulva prolifera</i>
<b>Predicted reactivity</b>	Algae, <i>Citrus x limon</i> , <i>Zea mays</i> Species of your interest not listed? <a href="#">Contact us</a>
<b>Additional information</b>	Reaction with cyanobacteria: <i>Synechocystis</i> 6803 and <i>Synechococcus</i> 7942 possible to obtain on total cell extract when using antibody at 1: 500 and longer exposure time.
<b>Selected references</b>	<a href="#">Redekop</a> et al. (2020). PsbS Contributes to Photoprotection in Chlamydomonas Reinhardtii Independently of Energy Dissipation. <i>Biochim Biophys Acta Bioenerg.</i> 2020 Jun 1;1861(5-6):148183. doi: 10.1016 <a href="#">Liu</a> et al. (2020). Acid treatment combined with high light leads to increased removal efficiency of Ulva prolifera. <i>Algal Research</i> , Volume 45, January 2020, 101745 <a href="#">Storti</a> et al. (2020). The activity of chloroplast NADH dehydrogenase-like complex influences the photosynthetic activity of the moss Physcomitrella patens. doi.org/10.1101/2020.01.29.924597 <a href="#">Koh</a> et al. (2019). Heterologous synthesis of chlorophyll a b in Nannochloropsis salina enhances growth and lipid production by increasing photosynthetic efficiency. <i>Biotechnol Biofuels.</i> 2019 May 14;12:122. doi: 10.1186/s13068-019-1462-3. eCollection 2019. <a href="#">Dall'Osto</a> et al. (2019). Combined resistance to oxidative stress and reduced antenna size enhance light-to-biomass conversion efficiency in Chlorella vulgaris cultures. <i>Biotechnol Biofuels.</i> 2019 Sep 16;12:221. doi: 10.1186/s13068-019-1566-9. <a href="#">Fristedt</a> et al. (2015). The thylakoid membrane protein CGL160 supports CF1CF0 ATP synthase accumulation in Arabidopsis thaliana. <i>PLoS One.</i> 2015 Apr 2;10(4):e0121658. doi: 10.1371/journal.pone.0121658. <a href="#">Storti</a> et al. (2018). Role of cyclic and pseudo-cyclic electron transport in response to dynamic light changes in Physcomitrella patens. <i>Plant Cell Environ.</i> 2018 Nov 29. doi: 10.1111/pce.13493. <a href="#">Kong</a> et al. (2018) Interorganelle Communication: Peroxisomal MALATE DEHYDROGENASE2 Connects Lipid Catabolism to Photosynthesis through Redox Coupling in Chlamydomonas. <i>Plant Cell.</i> 2018 Aug;30(8):1824-1847. doi: 10.1105/tpc.18.00361 <a href="#">Jokei</a> et al. (2018). Hunting the main player enabling Chlamydomonas reinhardtii growth under fluctuating light. <i>Plant J.</i> 2018 Mar 25. doi: 10.1111/tpj.13897. <a href="#">Du</a> et al. (2018). Galactoglycerolipid Lipase PGD1 Is Involved in Thylakoid Membrane Remodeling in Response to Adverse Environmental Conditions in Chlamydomonas. <i>Plant Cell.</i> 2018 Feb;30(2):447-465. doi: 10.1105/tpc.17.00446. <a href="#">Schöttler</a> et al. (2017). The plastid-encoded Psal subunit stabilizes photosystem I during leaf senescence in tobacco. <i>J Exp Bot.</i> 2017 Feb 1;68(5):1137-1155. doi: 10.1093/jxb/erx009. <a href="#">Zou</a> et al. (2017). An Animal-Like Cryptochrome Controls the Chlamydomonas Sexual Cycle. <i>Plant Physiol.</i> 2017 Jul;174(3):1334-1347. doi: 10.1104/pp.17.00493. <a href="#">Georg</a> et al. (2017). Acclimation of Oxygenic Photosynthesis to Iron Starvation Is Controlled by the sRNA IsaR1. <i>Curr Biol.</i> 2017 May 22;27(10):1425-1436.e7. doi: 10.1016/j.cub.2017.04.010. (Synechocystis PCC6803) <a href="#">Tyuereva</a> et al. (2017). The absence of chlorophyll b affects lateral mobility of photosynthetic complexes and lipids in grana membranes of Arabidopsis and barley chlorina mutants. <i>Photosynth Res.</i> 2017 Apr 5. doi: 10.1007/s11120-017-0376-9. (Hordeum vulgare, western blot)

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- [Dang et al. \(2014\)](#). Combined Increases in Mitochondrial Cooperation and Oxygen Photoreduction Compensate for Deficiency in Cyclic Electron Flow in *Chlamydomonas reinhardtii*. *Plant Cell.* 2014 Jul 2. pii: tpc.114.126375.
- [Lang et al. \(2011\)](#). Simultaneous isolation of pure and intact chloroplasts and mitochondria from moss as the basis for sub-cellular proteomics. *Plant Cell Rep.* 2011 Feb;30(2):205-15. doi: 10.1007/s00299-010-0935-4.

## Application example



*Chlamydomonas reinhardtii* samples are lysed cells, *Arabidopsis thaliana* samples are prepared from thylakoid membranes; Samples were boiled 1 min in 3%SDS, then 10ug of chlorophylls were loaded in each well of a 12% acrylamide gel.



15 µg protein of whole cell extracts precipitated with 80 % acetone followed by re-suspension in 100 mM Tris HCl pH 6.8, 4 % SDS, 20 mM EDTA of *Chlamydomonas reinhardtii* were loaded on BioRad 4-20% Criterion TGX Precast Mini protein gels. Gels were run at 85V. For electro-blotting wet transfer onto nitrocellulose membrane was performed (105 V for 1h). Overnight blocking with 5% milk in TBS-T in the cold room. Two-hour-long incubation with anti-cyt c6 antibodies at a dilution of 1:50 000 in TBS-T was followed by washes and incubation with matching anti-rabbit secondary antibodies and development with chemiluminescent detection reagent following manufacture's recommendations. Image was taken using Chemidoc MP Imaging system. Exposure time was in a range of 3 to 10 seconds.

Courtesy of Dr. Angeliki Tsihla, Petroutsos lab, CEA Grenoble, France