

Product no **AS06 119**

Cyt f | Cytochrome f protein (PetA) of thylakoid Cyt b6/f-complex (algal)

Product information

Immunogen	GST fusion to cytochrome f from <i>Chlamydomonas reinhardtii</i> P23577
Host	Rabbit
Clonality	Polyclonal
Purity	Serum
Format	Lyophilized
Quantity	50 µl
Reconstitution	For reconstitution add 50 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.
Additional information	Contains 0.02 % sodium azide as preservative.

Application information

Recommended dilution	1 : 2000-1 : 50 000 (WB)
Expected apparent MW	34 31-32 kDa
Confirmed reactivity	<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>Physcomitrella patens</i> , <i>Selaginella martensi</i> , <i>Synechocystis</i> sp. 6803 substrain PCC-M, <i>Ulva prolifera</i>
Predicted reactivity	Algae, <i>Citrus x limon</i> , <i>Zea mays</i> Species of your interest not listed? Contact us
Additional information	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. For high resolution images, please visit the specific product page at www.agrisera.com
Selected references	Redekop et al. (2020). PsbS Contributes to Photoprotection in <i>Chlamydomonas Reinhardtii</i> Independently of Energy Dissipation. <i>Biochim Biophys Acta Bioenerg.</i> 2020 Jun 1;1861(5-6):148183. doi: 10.1016 Liu et al. (2020). Acid treatment combined with high light leads to increased removal efficiency of <i>Ulva prolifera</i> . <i>Algal Research</i> , Volume 45, January 2020, 101745 Storti et al. (2020). The activity of chloroplast NADH dehydrogenase-like complex influences the photosynthetic activity of the moss <i>Physcomitrella patens</i> . doi.org/10.1101/2020.01.29.924597 Koh et al. (2019). Heterologous synthesis of chlorophyll a b in <i>Nannochloropsis salina</i> 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. Dall'Osto et al. (2019). Combined resistance to oxidative stress and reduced antenna size enhance light-to-biomass conversion efficiency in <i>Chlorella vulgaris</i> cultures. <i>Biotechnol Biofuels.</i> 2019 Sep 16;12:221. doi: 10.1186/s13068-019-1566-9. Fristedt et al. (2015). The thylakoid membrane protein CGL160 supports CF1CF0 ATP synthase accumulation in <i>Arabidopsis thaliana</i> . <i>PLoS One.</i> 2015 Apr 2;10(4):e0121658. doi: 10.1371/journal.pone.0121658. Storti et al. (2018). Role of cyclic and pseudo-cyclic electron transport in response to dynamic light changes in <i>Physcomitrella patens</i> . <i>Plant Cell Environ.</i> 2018 Nov 29. doi: 10.1111/pce.13493. Kong et al. (2018) Interorganelle Communication: Peroxisomal MALATE DEHYDROGENASE2 Connects Lipid Catabolism to Photosynthesis through Redox Coupling in <i>Chlamydomonas</i> . <i>Plant Cell.</i> 2018 Aug;30(8):1824-1847. doi: 10.1105/tpc.18.00361 Jokel et al. (2018). Hunting the main player enabling <i>Chlamydomonas reinhardtii</i> growth under fluctuating light. <i>Plant J.</i> 2018 Mar 25. doi: 10.1111/tpj.13897. Du et al. (2018). Galactoglycerolipid Lipase PGD1 Is Involved in Thylakoid Membrane Remodeling in Response to Adverse Environmental Conditions in <i>Chlamydomonas</i> . <i>Plant Cell.</i> 2018 Feb;30(2):447-465. doi: 10.1105/tpc.17.00446. Schöttler 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. Zou et al. (2017). An Animal-Like Cryptochrome Controls the <i>Chlamydomonas</i> Sexual Cycle. <i>Plant Physiol.</i> 2017 Jul;174(3):1334-1347. doi: 10.1104/pp.17.00493. Georg 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. (<i>Synechocystis</i> PCC6803) Tyureva et al. (2017). The absence of chlorophyll b affects lateral mobility of photosynthetic complexes and lipids in grana membranes of <i>Arabidopsis</i> and barley chlorina mutants. <i>Photosynth Res.</i> 2017 Apr 5. doi:

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[Ferroni](#) et al. (2016). Light acclimation in the lycophyte *Selaginella martensii* depends on changes in the amount of photosystems and on the flexibility of the light-harvesting complex II antenna association with both photosystems. *New Phytol.* 2016 Apr 5. doi: 10.1111/nph.13939.

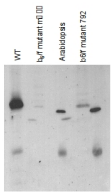
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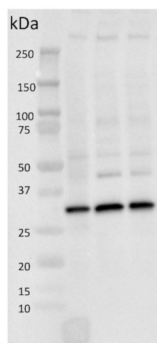
[Hoika](#) et al. (2014). Inducible repression of nuclear-encoded subunits of the cytochrome b6f complex in tobacco reveals an extraordinarily long lifetime of the complex. *Plant Physiol.* 2014 Jun 24. pii: pp.114.243741.

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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 10 µg 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 f 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 Tsuchla, Petroutsos lab, CEA Grenoble, France