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Product no AS06 119

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

Product information

Immunogen	GST fusion to cytochrome f from *Chlamydomonas reinhartii* 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 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.
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	*Arabidopsis thaliana, Chlamydomonas reinhardtii, Chlorella vulgaris, Colobanthus quitensis Kunt Bartl, CRaterostigma pumilum, Hordeum vulgare, Nannochloropsis gaditana, Nicotiana tabacum, Nostoc* sp. PCC7120*, Physcomitrium patens, Selaginella martensi, Synechocystis* sp. 6803 substrain PCC-M, *Ulva prolifera*
Predicted reactivity	Algae*, Citrus x limon*, *Zea mays* Species of your interest not listed? Contact us
Additional information	Reaction with cyanobacteria: *Synechocystis* 6803 and *Synechococcus* 7942 possible to obtain on total cell extract when using antibody at 1: 500 and longer exposure time.
Selected references	Sola et al. (2026). The yellow-in-the-dark chlL Chlamydomonas mutant as a model for time-resolved chloroplast biogenesis and retrograde signaling. Plant Physiol . 2026 Aug 4;201(4):kiag600. doi: 10.1093/plphys/kiag600. Laihonen et al. (2026). Daily Heat Stress Induces Donor-Side Limitation of PSI Via Downregulation of the Cyt b6f Complex. Plant Cell Environ. 2026 Jul 8. doi: 10.1111/pce.70730. Pfleger et al. (2025). CO2-Dependent Promotion of Photosynthesis Drives Metabolic Photoacclimation in Chlamydomonas reinhardtii. Physiol Plant . 2025 Sep-Oct;177(5):e70461. doi: 10.1111/ppl.70461. Murakami et al. (2025). Global Identification of AGO3–RNA Interactions Reveals Targets of Small RNA–mediated Gene Regulation in Chlamydomonas reinhardtii. Plant Cell Physiol . 2025 Jul 24;66(6):940-955. doi: 10.1093/pcp/pcaf040. Redekop et al. (2020). PsbS Contributes to Photoprotection in Chlamydomonas Reinhardtii Independently of Energy Dissipation . Biochim Biophys Acta Bioenerg . 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 Ulva prolifera. Algal Research,Volume 45, January 2020, 101745 Storti 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 Koh et al. (2019). Heterologous synthesis of chlorophyllÃ?Â bÃ?Â inÃ?Â Nannochloropsis salinaÃ?Â enhances growth and lipid production by increasing photosynthetic efficiency. Biotechnol Biofuels.Ã?Â 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 Chlorella vulgaris cultures.Biotechnol Biofuels. 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 Arabidopsis thaliana. PLoS One. 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 Physcomitrella patens. Plant Cell Environ. 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 Chlamydomonas. Plant Cell. 2018 Aug;30(8):1824-1847. doi: 10.1105/tpc.18.00361

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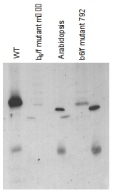
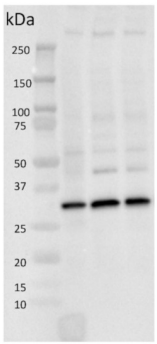
Application example



Chlamydomonas reinhardtii samples are lysed cells, *Arabidopsis thaliana* samples are prepared from thylakoid membranes; Samples were boiled 1 min in 3%SDS,then 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 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 Tsichla, Petroutsos lab, CEA Grenoble, France