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Product no AS06 121

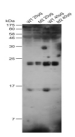
Anti-FDX1 | Ferredoxin

Product information

Immunogen	Native ferredoxin purified from *Spinacia oleracea*.
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	In *Arabidopsis thaliana* leaf extracts there is a strong cross-reactivity at 20 kDa.

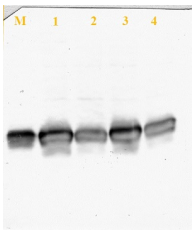
Application information

Recommended dilution	1 : 1000 (WB)
Expected | apparent MW	10 (*Spinacia oleracea*); 16.7 (*Arabidopsis thaliana*), 13.7 (*Chlamydomonas reinhardtii*)
Confirmed reactivity	*Arabidopsis thaliana, Chlamydomonas reinhardtii, Hordeum vulgare, Pinus strobus, Spinacia oleracea, Synechocystis 6803* substrain PCC-M
Predicted reactivity	Dicots*, Nicotiana tabacum, Physcomitrium patens, Zea mays* Species of your interest not listed? Contact us
Not reactive in	*Phaeodactylum tricornutum*
Additional information	Load per well: 20-40 µg/lane required for *Arabidopsis thaliana*, 2-10 µg for other species. This product can be sold containing proclin if requested.
Selected references	Krupinska et al. (2025). Iron allocation to chloroplast proteins depends on the DNA-binding protein WHIRLY1. Planta. 2025 Jun 17;262(2):32. doi: 10.1007/s00425-025-04736-8. Tiwari et al. (2024).Differential FeS cluster photodamage plays a critical role in regulating excess electron flow through photosystem I. Nat Plants. 2024 Oct;10(10):1592-1603. doi: 10.1038/s41477-024-01780-2. Lin et al. (2024). Hydrogen production in the Chlorella sp. DT mutants carrying heterologous electron donor ferredoxin 1 of Chlamydomonas reinhardtii. Electronic Journal of Biotechnology Volume 69, May 2024, Pages 11-20. Cvetkovska et al. (2018). Characterization of photosynthetic ferredoxin from the Antarctic alga Chlamydomonas sp. UWO241 reveals novel features of cold adaptation. New Phytol. 2018 Jul;219(2):588-604. doi: 10.1111/nph.15194. Jokel et al. (2018). Hunting the main player enabling Chlamydomonas reinhardtii growth under fluctuating light. Plant J. 2018 Mar 25. doi: 10.1111/tpj.13897. Georg et al. (2017). Acclimation of Oxygenic Photosynthesis to Iron Starvation Is Controlled by the sRNA IsaR1. Curr Biol. 2017 May 22;27(10):1425-1436.e7. doi: 10.1016/j.cub.2017.04.010. Hu et al. (2017). The SUFBC2 D Complex is Required for the Biogenesis of All Major Classes of Plastid Fe-S Proteins. Plant J. 2017 Jan 19. doi: 10.1111/tpj.13483. Higuchi et al. (2011). Modulation of macronutrient metabolism in barley leaves under iron-deficient condition. Soil Sc and Plant Nutr. 57 (2): 233-247.



20 or 40 µg of total protein from *Arabidopsis*

thaliana (WT) leafs or ferredoxin mutant fd2 were separated on 15 % acrylamide gel with 6 M urea. Filters were blotted on PVDF, blocked (1 h) with 5 % milk, incubated with 1: 1000 anti-ferredoxin (over night in 4ºC) in 1 % milk/TBS-T) followed by incubation with 1: 10000 secondary antibody (2 h) coupled to HRP and visualization with standard ECL.



20 or 40 µg of total protein from *Arabidopsis thaliana* (WT) leafs or ferredoxin mutant fd2 were separated on 15 % acrylamide gel with 6 M urea. Filters were blotted on PVDF,5 µg of soluble protein extracts from *Chlamydomonas reinhardtii* strain CC-4532 were separated on 15 % SDS-PAGE and blotted at 4 W for 30 min to nitrocellulose membrane (0.1 µm pore size) using semi-dry transfer. The blot was blocked with 1 % non-fat dry milk overnight at room temperature (RT) with agitation. The blot was incubated in the primary antibody solution at a dilution of 1: 10 000 in PBS-T+1% milk for 2h at RT with agitation. The antibody solution was decanted and the blot was rinsed briefly twice, then washed once for 15 min and 3 times for 5 min in PBS-T at RT with agitation. The blot was incubated in secondary antibody solution (anti-rabbit IgG-AP conjugated) diluted to 1: 300 in PBS-T+1% milk for 1h at RT with agitation. The blot was washed as above and developed with exposure time of 2.5 minutes.

Courtesy of Dr. Marcus Miethke, Department of Chemistry & Biochemistry, UCLA