

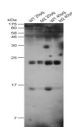
Product no **AS06 121****Anti-FDX1 | Ferredoxin****Product information**

<b>Immunogen</b>	Native ferredoxin purified from <i>Spinacia oleracea</i> .
<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.

**Additional information** | In *Arabidopsis thaliana* leaf extracts there is a strong cross-reactivity at 20 kDa.

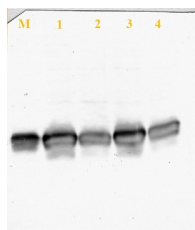
**Application information**

<b>Recommended dilution</b>	1 : 1000 (WB)
<b>Expected   apparent MW</b>	10 ( <i>Spinacia oleracea</i> ); 16.7 ( <i>Arabidopsis thaliana</i> ), 13.7 ( <i>Chlamydomonas reinhardtii</i> )
<b>Confirmed reactivity</b>	<i>Arabidopsis thaliana</i> , <i>Chlamydomonas reinhardtii</i> , <i>Hordeum vulgare</i> , <i>Pinus strobus</i> , <i>Spinacia oleracea</i> , <i>Synechocystis</i> 6803 substrain PCC-M
<b>Predicted reactivity</b>	Dicots, <i>Nicotiana tabacum</i> , <i>Physcomitrium patens</i> , <i>Zea mays</i>
	Species of your interest not listed? <a href="#">Contact us</a>
<b>Not reactive in</b>	<i>Phaeodactylum tricornutum</i>
<b>Additional information</b>	Load per well: 20-40 µg/lane required for <i>Arabidopsis thaliana</i> , 2-10 µg for other species.
	This product can be sold containing proclin if requested.
<b>Selected references</b>	<p><a href="#">Tiwari</a> et al. (2024). Differential FeS cluster photodamage plays a critical role in regulating excess electron flow through photosystem I. <i>Nat Plants</i>. 2024 Oct;10(10):1592-1603. doi: 10.1038/s41477-024-01780-2.</p> <p><a href="#">Lin</a> et al. (2024). Hydrogen production in the <i>Chlorella</i> sp. DT mutants carrying heterologous electron donor ferredoxin 1 of <i>Chlamydomonas reinhardtii</i>. <i>Electronic Journal of Biotechnology</i> Volume 69, May 2024, Pages 11-20.</p> <p><a href="#">Cvetkovska</a> et al. (2018). Characterization of photosynthetic ferredoxin from the Antarctic alga <i>Chlamydomonas</i> sp. UWO241 reveals novel features of cold adaptation. <i>New Phytol.</i> 2018 Jul;219(2):588-604. doi: 10.1111/nph.15194.</p> <p><a href="#">Jokej</a> 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.</p> <p><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.</p> <p><a href="#">Hu</a> et al. (2017). The SUFBC2 D Complex is Required for the Biogenesis of All Major Classes of Plastid Fe-S Proteins. <i>Plant J.</i> 2017 Jan 19. doi: 10.1111/tpj.13483.</p> <p><a href="#">Higuchi</a> et al. (2011). Modulation of macronutrient metabolism in barley leaves under iron-deficient condition. <i>Soil Sc and Plant Nutr.</i> 57 (2): 233-247.</p>



20 or 40 µg of total protein from *Arabidopsis thaliana* (WT) leaves 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 4°C) 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) leaves 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