

Anti-Ferredoxin-3 (Arabidopsis) antibody, rabbit polyclonal

Cat. # 81-019 Size: 100 µg

Background:

Ferredoxins are iron-sulfur proteins that transfer electrons in a wide variety of metabolic reactions. Occupies a key position both for transferring the photoreducing power to Fd-NADP⁺ oxidoreductase (FNR), hence the formation of NADPH, and for mediating the cyclic electron flow around photosystem I (PSI). Fd3 is most abundantly expressed in root but also expressed in leaf (7%).

Specifications:

Storage: Shipped at 4°C and store at -20°C. (Do not freeze below -25°C)

Form: 2 mg/ml in PBS, 50% glycerol. Filter sterilized. No preservative or carrier added.

Purity: IgG, affinity-purified with Protein A

Immunogen: Purified recombinant Arabidopsis Fd3 protein (full size, no tag attached)

Reactivity: Fd3 proteins including that of Cyanobacteria, maize and Arabidopsis.

Validation: Specificity has been validated by Western Blot with recombinant Arabidopsis Ferredoxin-3 (Fd3) protein.

Applications

1. Western blot (1/1,000- 1/3,000 dilution)
2. ELISA (assay dependent)

Other applications have not been tested.

Data Link: Swiss-Prot [Q9ZQG8](#) (A. thaliana), [P27788](#) (Z. mays), [B7JWZ9](#) (Synechococcus)

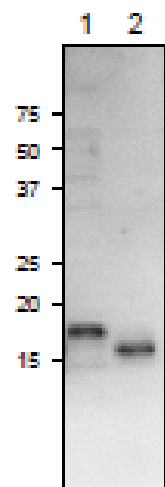
Fig. 1 Western Blot of Fd3 protein.

Anti-Fd3 antiserum was used at 1/1,000 dilution. Secondary antibody (goat anti-rabbit IgG antibody HRP-conjugated, ab97051) was used at 1/10,000 dilution.

1. Arabidopsis leaf extract, 10 µg
2. Maize leaf extract, 10 µg

Molecular masses of Fd3 of arabidopsis and maize is 16.6 and 16,1 kDa, respectively.

Fdx3 is abundantly expressed in root but it is also expressed in leaf.



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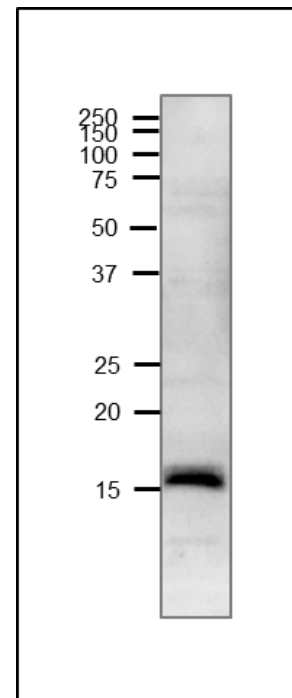
Fig.2 Western blot of Fd3 in crude extract of Cyanobacterium, Synechococcus.

Sample: Crude extract of Synechococcus strain 6803.

15% SDS-PAGE

First antibody, the anti-Ferredoxin-2 antibody was used at 1/1,000 dilution. As 2nd antibody, HRP-conjugated goat anti-rabbit IgG antibody (ab 97051) was used at 1/10,000 dilution.

Molecular mass of Synechococcus Fd3 indicated from the sequence is 11 kDa.



References: This product has been used in the following publication.

1. Hanke GT, Kimata-Arigo Y, Taniguchi I, Hase T. A post genomic characterization of Arabidopsis ferredoxins. *Plant Physiol.* 2004 Jan;134(1):255-64. Epub 2003 Dec 18. PMID: [14684843](#) WB; Arabidopsis
2. Ramirez L. et al. Glutathione and ascorbic acid protect Arabidopsis plants against detrimental effects of iron deficiency. *J Exp Bot.* 2013 Aug;64(11):3169-78. PMID: [23788722](#) WB; Arabidopsis