

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

81-019 100 µg

Shipping and Storage: Shipped at 4°C or -20°C and store at -20°C. Do not freeze.

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

Form: 2 mg/ml in PBS- with 50% glycerol. Filter sterilized. No preservative nor carrier protein added.

Purity: IgG, affinity-purified with Protein A

Reactivity: Fd3 proteins including those of Arabidopsis, Maize and Cyanobacteria.

Validation: Specificity has been validated by WB with recombinant arabidopsis Ferredoxin3 (Fd3) protein.

Applications:

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

Other applications have not been tested.

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%).

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

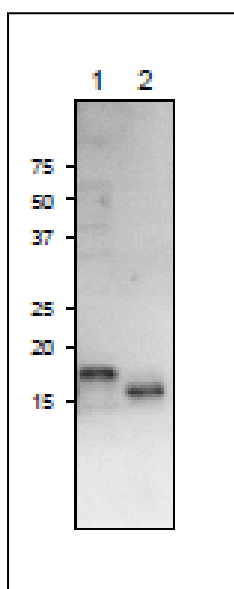


Fig.1 Western Blot of Fd3 protein.

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.

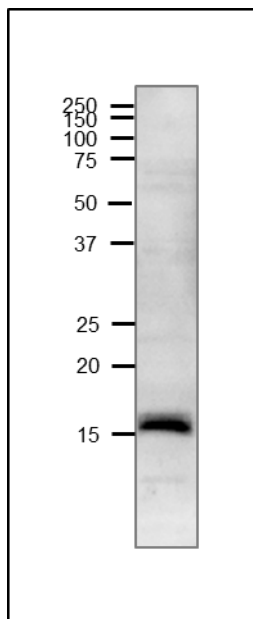


Fig.2 Western blot of Fd3 in crude extract of Cyanobacterium, Synechococcus.

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.

Reference: This product has been used in the following publications.

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**