

## Anti- Ferredoxin-3 (maize) antibody, rabbit polyclonal

81-013      100 µg

**Storage:** Ship at 4°C and store at -20°C (Avoid freezing by storing below -25°C)

**Validation:** Specificity has been validated by WB with recombinant full-size maize Ferredoxin-3 (Fd3) protein.

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

**Reactivity:** Plant Fd3 proteins including those of Maize and Arabidopsis.

Cross-reacts weakly with other Ferredoxin isoproteins, like Arabidopsis and Maize Fd2, and Maize Fd6.

### Applications:

1. Western blotting (1/2,000-1/10,000 dilution)
2. ELISA (Assay dependent)

Other applications have not been tested.

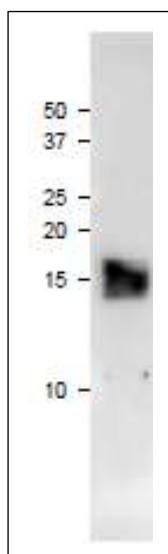
**Purity:** IgG, affinity-purified with Protein A.

**Form:** 1 mg/ml in PBS, 50% glycerol. Filter sterilized. No preservative or carrier protein added.

**Background:** Ferredoxins are iron-sulfur proteins that transfer electrons in a wide variety of metabolic reactions. Fd3 is non-photosynthetic Fd expressed more in root than in leaf.

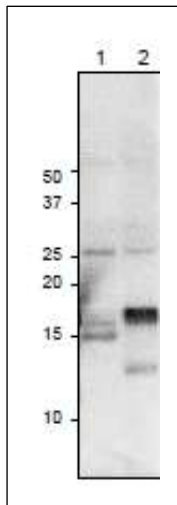
**Subcellular location:** Chloroplast and Plastid

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



**Fig.1 Western blot of purified maize Ferredoxin-3**

The primary antibody was used at 1/2,000 dilution

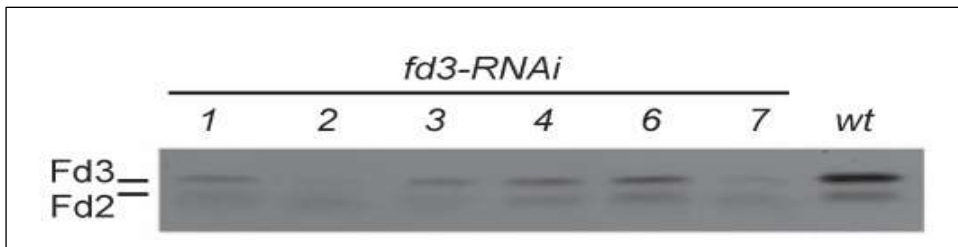


**Fig.1 Western Blot of root ferredoxins expressed in plant leaves as detected with anti-Ferredoxin-3 antibody**

Anti-Fd3 antibody 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

The antibody detects root-type ferredoxins expressed in leaves..



**Fig.2 Reduction of Fd3 protein expression by various *fd3*-RNAi in Arabidopsis as detected by western blotting with anti-Ferredoxin 3 antibody**

The anti-Fd3 antibody was used at 1/5,000 dilution.

Different levels of reduction in Fd3 expression were observed with different RNAi (lane 1-7) expressed in T1 plants. Samples were extracts from ground tissue. Wt is without RNAi expression.

**Reference:** This product has been used in the following publication.

1. Matsumura T, Sakakibara H, Nakano R, Kimata Y, Sugiyama T, Hase T. A nitrate-inducible ferredoxin in maize roots. Genomic organization and differential expression of two nonphotosynthetic ferredoxin isoproteins. *Plant Physiol.* 1997 Jun;114(2):653-60. PMID: [9193097](#) **WB; Maize**
2. Hanke GT et al., A post genomic characterization of Arabidopsis ferredoxins. [Plant Physiol.](#) 2004 Jan;134(1):255-64. PMID: [14684843](#) **WB; Arabidopsis**
3. Hanke GT, Hase T. Variable photosynthetic roles of two leaf-type ferredoxins in arabidopsis, as revealed by RNA interference. *Photochem Photobiol.* 2008 Nov-Dec;84(6):1302-9. PMID: [18673322](#) **WB ; Arabidopsis**

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