

Anti-Ferredoxin-1 (plant) antibody, rabbit polyclonal

Cat. # 81-011 Size: 100 µg

Background:

Ferredoxins are iron-sulfur proteins that transfer electrons in a wide variety of metabolic reactions. It 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).

Subcellular location: Chloroplast

Specifications:

Storage: Shipped at 4°C and store at -20°C.

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

Purity: IgG, affinity-purified with protein A agarose.

Immunogen: Purified recombinant maize Fd1 protein (full size, no tag attached)

Reactivity: Reacts with plant Fd1 and Fd2 isoproteins including those of Maize and Arabidopsis

Validation: Specificity has been validated by WB with purified maize Ferredoxin-1 (Fd1) protein.

Applications

1. Western blotting (1/1,000- 1/5,000 dilution)
2. ELISA (assay dependent)

Other applications have not been tested.

Data Link: Swiss-Prot [O04090](#) (A. thaliana), [P27787](#) (Z. mays)

Distributed by AS ONE International, Inc.

Tel: 408-638-7415

www.asone-int.com

info@asone-int.com

Fig.1 Western Blot of Ferredoxin isoproteins with anti-Ferredoxin-1 (maize) antibody in plant leaf extracts.

Anti-Fd1 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. Recombinant Maize Fd1.
2. Arabidopsis leaf extract, 10 µg
3. Maize leaf extract, 10 µg

Molecular mass of Maize Fds are about 12kDa, but migrates at the position around 15 kDa on SDS-PAGE.

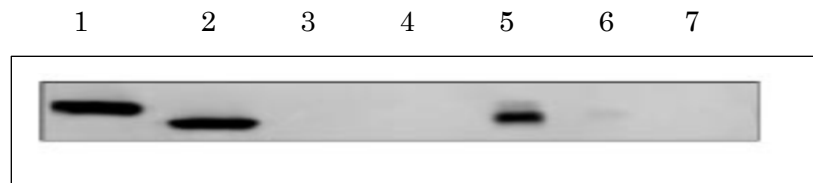
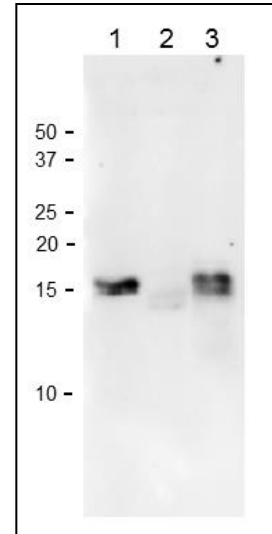


Fig. 2 Detection of Arabidopsis Ferredoxin isoproteins, 1 and 2 by western blotting with anti-Ferredoxin-1 (maize) antibody.

1. Recombinant At-Feredoxin-1 (200 nmol)
2. Recombinant At-Ferredoxin-2 (200 nmol)
3. Recombinant At-Ferredoxin-3 (200 nmol)
4. Recombinant At-Ferredoxin-4 (20 nmol)
5. Leaf extract of Arabidopsis, soluble fraction with 70% saturated ammonium sulfate.
6. Leaf extract of Arabidopsis, insoluble fraction with 70% saturated ammonium sulfate.
7. Root extract of Arabidopsis

The Maize leaf type specific antibody, anti-Ferredoxin-1 antibody also specifically reacts with Arabidopsis leaf type ferredoxins, 1 and 2 isoproteins.

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

1. Kimata Y, Hase T. "Localization of ferredoxin isoproteins in mesophyll and bundle sheath cells in maize leaf." *Plant Physiol.* 1989 Apr;89(4):1193-7. PMID: [16666683](#) WB ;Maize
2. 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

Distributed by AS ONE International, Inc.

Tel: 408-638-7415

www.asone-int.com

info@asone-int.com