

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

Product code	81-011
Size	100 µg
Storage	-20°C
Concentration	1.0 mg/ml
Buffer	PBS ⁻ with 50% glycerol
Purity	Purified IgG fraction with protein A from rabbit antiserum.
Immunogen	Purified recombinant Maize Fd1 protein (full-size, no Tag).
Isotype	Rabbit IgG
Reactivity	Reacts with plant Fd1 and Fd2 isoproteins including those of Maize and Arabidopsis.
Special notes	Validation: Specificity has been validated by WB with purified Maize Ferredoxin-1 (Fd1) protein.
Application	1. Western blotting (1/1,000-1/5,000 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. 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
Data Link	Swiss-Prot O04090 (A. thaliana), P27787 (Z. mays)
Please note: All products are FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES. NOT FOR MILITARY USE.	

Data Images: 81-011 Anti-Ferredoxin-1 (Maize) antibody, rabbit polyclonal

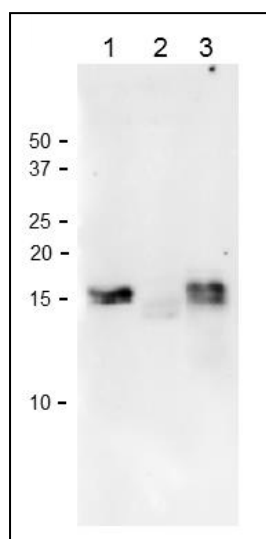


Fig.1 Western Blot of Ferredoxin isoproteins with anti-Ferredoxin-1 (maize) antibody in plant leaf extracts.

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.

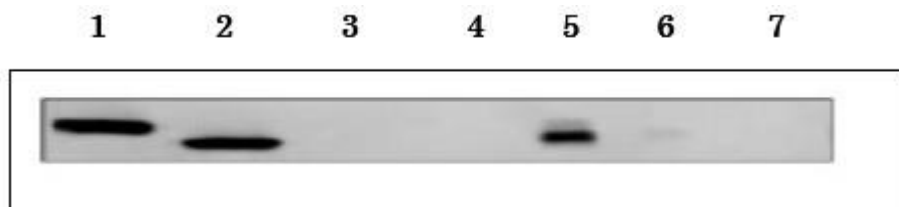


Fig.2 Detection of Arabidopsis Ferredoxin isoproteins, 1 and 2 by western blotting with anti-Ferredoxin-1 (maize) antibody.

1. Recombinant At-Ferredoxin-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.

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

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**