Bio Academia
Manufacturer

AS ONE

Anti- R-FNR (Root Ferredoxin-NADP reductase) antibody, rabbit polyclonal

Cat. # **81-007** Size: **100 µg**

Background:

Ferredoxin-NADP reductase (FNR) isoproteins of plant roots play a key role in redox homeostasis of NADPH / $NADP^+$ and donation of reducing equivalence to ferredoxin. R-FNR2 is major form of R-FNR and involved in reduction and detoxication of nitrite in root.

Specifications:

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

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

Purity: IgG, Protein A-affinity purified from rabbit antiserum

Immunogen: Purified recombinant maize root-FNR protein (full size, no tag attached)

Reactivity: Plant root FNR proteins (R-FNR1 and R-FNR2) including Arabidopsis and Maize. The antibody also reacts with leaf FNRs.

Applications

1. Western blotting (1/1,000- 1/30,000 dilution)
2. ELISA (assay dependent)

Other applications have not been tested.

Data Link: UniProtKB: Q41736 (Z. mays), Q9M0V6 (A. thaliana)

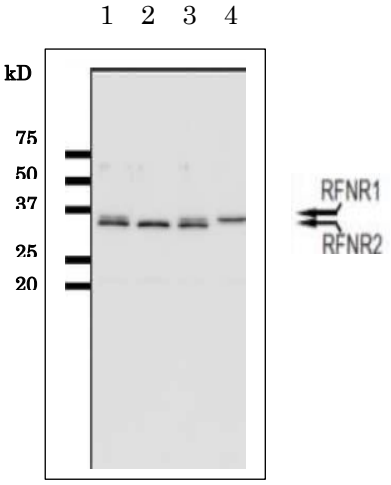

Fig.1 Detection of Arabidopsis R-FNR1 and R-FNR2 isoproteins by Western blot with anti-R-FNR antibody

Extracts from wild type strain Arabidopsis Col (1 and 3), mutant *rfer1* (2) and *rfnr2-2* (4) grown under 0.2 mM nitrate for 7 days were analyzed by western blotting. Anti-R-FNR antibody was used at 1/2,000 dilution. Note that R-FNR2 is dominant form in wild-type roots.

Wild type produces both R-FNR1 and R-FNR2. Mutant *rfnr1* produces R-FNR2 and mutant *rfr2* produces R-FNR1.

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

1. Onda Y, et al. Differential interaction of maize root ferredoxin:NADP(+) oxidoreductase with photosynthetic and non-photosynthetic ferredoxin isoproteins. Plant Physiol. 2000, Jul;123(3):1037-45. PMID: 10889253 WB; Maize
2. Hachiya T et al. Arabidopsis Root-Type Ferredoxin:NADP(H) Oxidoreductase 2 is Involved in Detoxification of Nitrite in Roots. Plant Cell Physiol. 2016 Nov;57(11):2440-2450. PMID: 27615794 WB; Arabidopsis