Bio Academia
Manufacturer

AS ONE

Anti-*Pf*-FNR (Ferredoxin--NADP reductase, *P. falciparum)* antibody, rabbit polyclonal

Cat. # **81-009** Size: **400 µg**

Background:

Fd:NADPH oxidoreductase (FNR) plays a key role in regulating the relative amounts of cyclic and non-cyclic electron flow to meet the demands of the plant for ATP and reducing power.

The human malaria parasite (Plasmodium falciparum) possesses a plastid-derived organelle called the apicoplast, which is believed to employ metabolisms crucial for the parasite's survival.

Subcellular location: Apicoplast (plastid-like organelle)

Specifications:

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

Form: 4 mg/ml in PBS, 50% glycerol. Filter sterilized. Azide and carrier free

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

Immunogen: Purified recombinant *P. falciparum* Ferredoxin-NADP reductase (full-size, no-tag attached) expressed in *E. coli.*

Reactivity: FNR protein of *Plasmodium falciparum*. Cross-reacts also with plant FNR isoproteins.

Applications

1. Western blot (1/500-1/2,000 dilution). Extract for Western blot should be made from apicoplast fraction of *P. falciparum.*
2. ELISA (assay dependent)

Other applications have not been tested.

Data Link: UniProKB C6KT68 (FENR_PLAF7)

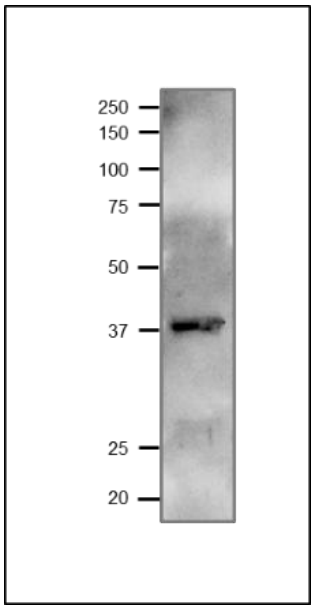

Fig.1 Western blot of Ferredoxin--NADP reductase of *P. falciparum* with anti-*Pf* FNR antibody.

Anti-*Pf* FNR antibody was used at 1/1,000 dilution. Second antibody (goat anti-rabbit IgG antibody HRP-conjugated, ab97051) was used at 1/10,000 dilution.

Sample: 1 µl of 40 µM recombinant *pf* FNR

Molecular mass indicated from the gene is 43.8 kDa. However, transit peptide consisting of N-terminal 18 amino acids is removed in the mature form.

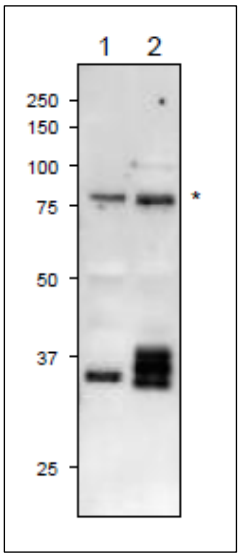

Fig. 2 The anti-*Pf*-FNR antibody reacts also with plant FNR proteins in Western blot.

1. Extract of Arabidopsis leaf (10 ug)
2. Extract of Maize leaf (10 ug)

The antibody was used at 1/1,000 dilution

Asterisk indicates a nonspecific band.

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

1. Kimata-Ariga Y et al. Cloning and characterization of ferredoxin and ferredoxin-NADP+ reductase from human malaria parasite. J Biochem. 2007 Mar;141(3):421-8 PMID:17251200. WB, IF; *P. falciparum.*