

**Anti Nitrile Oxidoreductase (alpha-NOR)
Mouse monoclonal antibody**

Subclass: IgG1/k

PRODUCT NO.

HYB 153-02

PRESENTATION

Preparation: Protein-A/G purified
 Content: Available in 200 µL and 1 mL, 1 mg/mL
 Solvent: 0.01 M phosphate buffer, pH 7.4, with 0.5 M NaCl and 15 mM sodium azide
 Storage: In the dark at 4-8°C

ANTIGEN

Nitrite Oxidoreductase (NOR) is an enzyme catalysing the oxidation of nitrite and is located at the inner side of the cytoplasmic and intracytoplasmic membranes of *Nitrobacter* (Nb) species (1). NOR from *N. hamburgensis* (2) consist of at least two major subunits, alpha-NOR and beta-NOR, with molucular masses of approximately 115 kDa and 65 kDa respectively. The *Nitrobacter* species are gram-negative microorganism ubiquitous in nature and gain energy from the oxidation of nitrite to nitrate.

IMMUNOGEN

Nitrite Oxidoreductase purified from *N. hamburgensis*.

SPECIFICITY

Alpha-subunit of NOR from *N. hamburgensis* K4, *N. winogradskyi* agilis K1, *N. winogradskyi* 213, *N. winogradskyi* 215, *N. winogradskyi* 255, and *n. vulgaris* K48 (3).

EPI TOPE SPECIFICITY

Not determined

REACTIVITY

HYB 153-02 reacts well in Elisa coated with cell extract as well as immunoblotting with a band of approximately 115 kDa corresponding to the beta-subunit of NOR (3,4).

CULTURE MEDIUM

RPMI 1640 with 10% fetal calf serum

FUSION PARTNER

X63-Ag8.653.

IMMUNIZATION

Female CF1xBalb/c F1 hybrid mice were immunized i.p. with immunogen.

APPLICATION

| Method | Usability | Dilution guideline | References |
|----------------------|-----------|--------------------|------------|
| ELISA | Yes | 1:2000 | 3 |
| Immunoblotting | Yes | | 3, 4 |
| Immunohistochemistry | Yes | | 4 |

The dilution guideline for ELISA is based on use as detection antibody for cell extract coated directly to the microtiter well. Users should determine the optimal dilutions for their own purposes.

REFERENCES

1. Sundermeyer-Klinger, H., Meyer, W., Warninghoff, B. and Bock, E. (1984) Membrane-bound nitrite oxidoreductase of *Nitrobacter*: evidence for a nitrate reductase system. *Arch Microbiol.* 140, 153-158.
2. Meincke, M., Bock, E., Kastrau, D. and Kroneck, P.M.H. (1992) Nitrite oxidoreductase from *Nitrobacter hamburgensis*: redox centers and their catalytic role. *Arch. Microbiol.* 158, 127-131
3. Aamand, J., Ahl, T., and Spieck, E. (1996) Monoclonal antibodies recognizing nitrite oxidoreductase of *Nitrobacter hamburgensis*, *N. winogradskyi*, and *N. vulgaris*. *Appl. Environ. Microbiol.* 62, 2352-2355
4. Bartosch, S., Wolgast, I., Spieck, E. and Bock, E. (1990) Identification of nitrite-oxidizing bacteria with monoclonal antibodies recognizing the nitrite oxidoreductase. *Appl. Environ. Microbiol.* 65, 4126-4133.

CONDITIONS

All products are supplied on the understanding that they are for in vitro use only. The information and product are offered without guarantee as the ultimate conditions of use are beyond our control. The animals from which this product was derived have not been exposed to or inoculated with any livestock or poultry disease agents exotic to the United States or Western Europe, and did not originate from facilities where work with exotic disease agents affecting livestock or avian species is carried out.