PRODUCT SPECIFICATION

STATENS SERUM INSTITUT

HYB 153-01 Anti Nitrite Oxidoreductase (β-NOR)

Mouse monoclonal antibody

Article No.	64655
Product Name	HYB 153-01 Anti Nitrite Oxidoreductase (β-NOR)
Clone	7G9
Subclass	IgG1 / Kappa
Description	**Preparation:** Protein-A purified **Content:** 1 mg/mL, based on $E_{(1\%)}$=14.0 at A_{280} **Solvent:** 0.01 M PB, pH 7.4, with 0.5 M NaCl **Storage:** -18 °C or colder
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 species (1). NOR from *N. hamburgensis* (2) consists of at least two major subunits, α-NOR and β-NOR, with molecular masses of approximately 130 kDa and 65 kDa respectively. The *Nitrobacter* species are gram-negative microorganisms ubiquitous in nature and gain energy from the oxidation of nitrite to nitrate.
Immunogen	Nitrite Oxidoreductase purified from *N. hamburgensis*..
Specificity	β-subunit of NOR from *N. hamburgensis* K_4, *N. winogradskyi agilis* K_1, *N. winograskyi* 213, *N. winogradskyi* 215, *N. winogradskyi* 255, and *N. vulgaris* K_{48}.
Epitope Specificity	HYB 153-01 Anti Nitrite Oxidoreductase (β-NOR) clone 7G9 reacts with a different epitope compared with HYB 153-07 Anti Nitrite Oxidoreductase (β-NOR) clone 14D5.
Reactivity	HYB 153-01 Anti Nitrite Oxidoreductase (β-NOR) clone 7G9 reacts well in ELISA coated with cell extract as well as in immunoblotting with a band of approximately 65 kDa corresponding to the β-subunit of NOR (3-4). HYB 153-01 Anti Nitrite Oxidoreductase (β-NOR) clone 7G9 has also been used for immunufluorescent staining of β-NOR in cells (4).
Culture Medium	Dulbecco's modified Eagle's medium 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	References
ELISA	yes	
Immunoblotting	yes	3-4
Immunofluorescence	yes	4
Immunocytochemistry	yes	4

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, Spieck E.** Monoclonal antibodies recognizing nitrite oxidoreductase of Nitrobacter hamburgensis, N. winogradskyi, and N. vulgaris. Appl Environ Microbiol. 1996 Jul;62(7):2352-5.
4) **Bartosch, S, Wolgast, I, Spieck, E, and Bock, E.** Identification of nitrite-oxidizing bacteria with monoclonal antibodies recognizing the nitrite oxidoreductase. Appl.Environ.Microbiol. 1999 65, 4126-4133.

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