

PRODUCT SPECIFICATION

STATENS
SERUM
INSTITUT



HYB 333-02 Anti Pertussis Toxin

Mouse monoclonal antibody

Article No.	59283 (0.2 mL), 100629 (1.0 mL)		
Product Name	HYB 333-02 Anti Pertussis Toxin		
Clone	21.3. D11A2G5		
Subclass	IgG1 / kappa		
Description	Preparation:	Protein-A purified	
	Concentration:	1 mg/mL ± 10%, based on A ₂₈₀ . See Certificate of Analysis for details.	
	Solvent:	PBS, pH 7.2 – 7.4	
	Storage:	-18 °C or colder	
Antigen	Pertussis toxin (islet-activating protein) is the major protein toxin produced by virulent strains of <i>Bordetella pertussis</i> , the organism that causes whooping cough (1). As revealed by polyacrylamide gel electrophoresis, the purified protein consists of five dissimilar subunits: S1 (MW 28,000), S2 (MW 23,000), S3 (MW 22,000), S4 (MW 11,700) and S5 (MW 9,300), in a molar ratio of 1:1:1:2:1. The A-protomer, S1 is responsible for the enzymatic activity of the toxin. Together, S2, S3, S4 and S5 comprise the B-oligomer, responsible for binding the toxin to the cell surface (2).		
Immunogen	Pertussis toxin.		
Specificity	HYB 333-02 (3) reacts with pertussis toxin. Some reactivity towards the toxoid is also present.		
Epitope Specificity	HYB 333-02 has a different epitope specificity compared with HYB 333-01, HYB 333-03, HYB 333-05, and HYB 333-09.		
Reactivity	HYB 333-02 (MAb clone 21.3 D11) (3) is well suited for ELISA based measurement of pertussis toxin. We recommend using HYB 333-02 as detection antibody (conjugated with signal molecules) in combination with HYB 333-01 as catching antibody. HYB 333-02 can neutralize pertussis toxin when measured by Chinese Hamster Ovary cell assays, Leucocytosis promoting activity and <i>in-vivo</i> experiments (4, 6).		
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	4-6
	Immunoblotting	nd.	4
	Immunofluorescence	nd.	
	Neutralization	yes	4,6

See next page

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References

- 1) **Pittman, M.** (1979) Rev. Infect. Dis. 1, 401-412.
- 2) **Tamura, M., Nogomori, K., Murai, S., Yajima, M., Ito, K., Katada, T., Ui, M. and Ishi, S.** (1982) Biochem. 21, 5516-5522.
- 3) HYB 333-02 is known from the literature as "21.3 D11".
- 4) **Schou C, Au-Jensen M, Heron I.** The interaction between pertussis toxin and 10 monoclonal antibodies. Acta Pathol Microbiol Immunol Scand C. 1987 Oct;95(5):177-87.
- 5) **Ibsen, P.H. and Heron, I.** (1990) Quantification of pertussis toxin in an enzyme linked immunosorbent assay with improved specificity. Biologicals, 18, 123-126.
- 6) **Ibsen, P.H.** (1996). The effect of formaldehyde, hydrogen peroxide and genetic detoxification of pertussis toxin on epitope recognition by murine monoclonal antibodies. Vaccine, 14, 359-368..

Conditions

For research use only. Not for use in diagnostic procedures. Not for therapeutic use or applications.

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