

# PRODUCT SPECIFICATION

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## HYB 333-09 Anti Pertussis Toxin

Mouse monoclonal antibody

<b>Article No.</b>	63950 (0.2 mL), 101054 (1.0 mL)		
<b>Product Name</b>	HYB 333-09 Anti Pertussis Toxin		
<b>Clone</b>	56.2E4		
<b>Subclass</b>	IgG1 / kappa		
<b>Description</b>	<b>Preparation:</b>	Protein-A purified	
	<b>Concentration:</b>	1 mg/mL $\pm$ 10%, based on A <sub>280</sub> . See Certificate of Analysis for details.	
	<b>Solvent:</b>	PBS, pH 7.2 – 7.4	
	<b>Storage:</b>	-18 °C or colder	
<b>Antigen</b>	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).		
<b>Immunogen</b>	Pertussis toxin B-oligomer.		
<b>Specificity</b>	HYB 333-09 (3) reacts with pertussis toxin.		
<b>Epitope Specificity</b>	HYB 333-09 has a different epitope specificity compared with HYB 333-01, HYB 333-02, HYB 333-03, HYB 333-05 and HYB 333-06.		
<b>Reactivity</b>	HYB 333-09 (MAb clone 56.2) (3) is well suited for ELISA based measuring of pertussis toxin.		
<b>Culture Medium</b>	Dulbecco's modified Eagle's medium with 10% fetal calf serum.		
<b>Fusion Partner</b>	X63-Ag8.653.		
<b>Immunization</b>	Female CF1xBalb/c F1 hybrid mice were immunized i.p. with immunogen.		
<b>Application</b>	<b>Method</b>	<b>Usability</b>	<b>References</b>
	ELISA	yes	4,6
	Immunoblotting	yes	5,6
	Immunofluorescence	nd.	
<b>References</b>	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 333-06 is known from the literature as "47.1". 4) 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 5) Petersen JW, Holm A, Ibsen PH, Hasløv K, Capiu C, Heron I. Identification of human T-cell epitopes on the S4 subunit of pertussis toxin. Infect Immun. 1992 Oct;60(10):3962-70. 6) Ibsen PH, Holm A, Petersen JW, Olsen CE, Heron I. Identification of B-cell epitopes on the S4 subunit of pertussis toxin. Infect Immun. 1993 Jun;61(6):2408-18.		

### Conditions

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

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