

PRODUCT SPECIFICATION



HYB 352-02 Anti Filamentous Hemagglutinin (FHA)

Mouse monoclonal antibody

Article No.	69603 (0.2 mL), 101057 (1.0 mL)		
Product Name	HYB 352-02 Anti Filamentous Hemagglutinin (FHA)		
Clone	12. 6F8		
Subclass	IgG1 / kappa		
Description	Preparation:	Protein-A purified	
	Concentration:	1 mg/mL \pm 10%, based on A_{280} . See Certificate of Analysis for details.	
	Solvent:	PBS, pH 7.2 – 7.4	
	Storage:	-18 °C or colder	
Antigen	<p>Filamentous hemagglutinin (FHA) of <i>Bordetella pertussis</i> is a 220 kDa large adhesive surface protein which together with the pertussis toxin (PTx) facilitates attachment of the bacteria to human ciliated cells and macrophages during the course of whooping cough (1).</p> <p>FHA can recognize and bind the leukocyte-restricted adhesion molecule (CD11b/CD18, Mac-1) suggesting that FHA mimics a natural ligand on endothelial cells for this integrin which enables FHA to competitively interfere with CD18-dependent leukocyte migration to the central nervous system (2). Anti FHA antibodies have been shown to be able to permeabilize the blood-brain barrier (1).</p>		
Immunogen	Whole cell Pertussis vaccine + FHA.		
Specificity	The antibody is specific for FHA from <i>Bordetella pertussis</i> .		
Epitope Specificity	In a competitive ELISA HYB 352-02 (3) is inhibited by the other monoclonal antibody developed in this series (HYB 352-01) and they are therefore not suited for use in a catching ELISA.		
Reactivity	HYB 352-02 (Mab clone 12.6F8) reacts with determinants in the C-terminal end of FHA (4, 6) also known as carbohydrate recognition domain D (5). Cross-reactivity to cerebral microvessels has been reported (1).		
Culture Medium	Dulbecco's modified Eagle's medium with 10% fetal calf serum.		
Fusion Partner	X63-Ag8.653.		
Immunization	Female Balb/c mice were immunized i.p. with immunogen.		
Application	Method	Usability	References
	ELISA	Yes	4
	Flow cytometry	Yes	7
	Immunoblotting	Yes	1, 2, 4, 6
	Immunofluorescence	nd.	
	Immunohistochemistry	Yes	1
	Immunoprecipitation	Yes	2

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References

- 1) **Tuomanen, E.I., Prasad, S.M., Georg, J.S., Hoepelman, A.I.M., et al.** (1993). Proc. Natl. Acad. Sci. USA. 90, 7824-7828.
- 2) **Starzyk, R.M., Rosenow, C., Frye, J., Leismann, M. et al.** (2000). J Infect Dis. 181, 181-187.
- 3) HYB 352-02 is known from the literature as "12.6F8".
- 4) **Delisse-Gathoye, A., Locht, C., Jacob, F., Raaschou-Nielsen, M. et al.** (1990). Infect Immun 58, 2895-2905.
- 5) **Prasad, S.M., Yin, Y., Rodzinski, E., Tuomanen, E.I., and Masure, H.R.** (1993). Infect Immun 61, 2780 – 2785
- 6) **Leininger E, Bowen S, Renaud-Mongénie G, Rouse JH, Menozzi FD, Locht C, Heron I, Brennan MJ.** Immunodominant domains present on the Bordetella pertussis vaccine component filamentous hemagglutinin. J Infect Dis. 1997 Jun;175(6):1423-31
- 7) **Coutte L, Antoine R, Drobecq H, Locht C, Jacob-Dubuisson F.** Subtilisin-like autotransporter serves as maturation protease in a bacterial secretion pathway. EMBO J. 2001 Sep 17;20(18):5040-8

Conditions

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