

**Anti-*Mycobacterium tuberculosis*, L-alanine dehydrogenase (Ald)  
Mouse monoclonal antibody**

PRODUCT NO.	<b>HBT 10</b> (WHO no. IT-46)	Subclass: IgG <sub>1</sub> /κ Clone: 1C3												
PRESENTATION	Preparation: Protein-A/G purified Content: Available in 200 µL and 1 mL size. 1 mg/mL +/- 15%. See Certificate of Analysis for details. Solvent: 0.01 M phosphate buffer, pH 7.4, containing 0.5 M NaCl and 15 mM sodium azide Storage: 4-8°C without exposure to light. No precautions necessary during handling.													
ANTIGEN	L-alanine dehydrogenase (Ald) antigen from <i>Mycobacterium tuberculosis</i> .													
IMMUNOGEN	Culture filtrat from <i>Mycobacterium tuberculosis</i> H37Rv													
SPECIFICITY	HBT 10 is specific for a 40 kDa band from short term culture of <i>Mycobacterium tuberculosis</i> in Western blotting after SDS-PAGE. The 40 kDa band was identified as the protein L-alanine dehydrogenase (Ald). Interspecies analyses with HBT 10 showed reacts with <i>M. tuberculosis</i> and <i>M. marinum</i> but not <i>M. bovis</i> BCG (3).													
EPI TOPE SPECIFICITY	HBT 10 recognizes the 12 aa SAITDADFKAAG (aa 45-56) region of Ald of <i>Mycobacterium tuberculosis</i> (4).													
REACTIVITY	HBT 10 reacts specifically with Ald of <i>Mycobacterium tuberculosis</i> . Hutter et al (4) has demonstrated that HBT 10 does not react with pyridine nucleotide transhydrogenase (PNT) of <i>Mycobacterium tuberculosis</i> , which has previously been suggested by Delforge et al. (5). HBT 10 can be used in immunoblotting, after 1- and 2-dimensional gel electrophoresis (3,4,6,7,8).													
CULTURE MEDIUM	Dulbecco's modified Eagle's medium with 10% fetal calf serum													
FUSION PARTNER	X63-Ag8.653													
IMMUNIZATION	BALB.B10 mice immunized by intravenous injection (1,3)													
APPLICATION	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 33%;">Method</th> <th style="width: 33%;">Usability</th> <th style="width: 33%;">References</th> </tr> </thead> <tbody> <tr> <td>ELISA</td> <td style="text-align: center;">Yes</td> <td></td> </tr> <tr> <td>Immunoblotting</td> <td style="text-align: center;">Yes</td> <td style="text-align: center;">3,4,6,7,8</td> </tr> <tr> <td>Immunohistochemistry</td> <td style="text-align: center;">Not determined</td> <td></td> </tr> </tbody> </table>		Method	Usability	References	ELISA	Yes		Immunoblotting	Yes	3,4,6,7,8	Immunohistochemistry	Not determined	
Method	Usability	References												
ELISA	Yes													
Immunoblotting	Yes	3,4,6,7,8												
Immunohistochemistry	Not determined													

REFERENCES	<ol style="list-style-type: none"> <li>1. Worsaae A, Ljungqvist L, Heron I (1988) Monoclonal antibodies produced in BALB.B10 mice define new antigenic determinants in culture filtrate preparations of <i>Mycobacterium tuberculosis</i>. J Clin Microbiol 26:2608-2614.</li> <li>2. Andersen AB, Andersen P, Ljungqvist L (1992) Structure and function of a 40,000-molecular-weight protein antigen of <i>Mycobacterium tuberculosis</i>. Infect Immun 60:2317-2323.</li> <li>3. Ljungqvist L, Worsaae A, Heron I (1988) Antibody response against <i>Mycobacterium tuberculosis</i> in 11 strains of inbred mice: Novel monoclonal antibody specificities generated by fusion, using spleens from BALB.B10 and CBA/J mice. Infect Immun 56:1994-1998.</li> <li>4. Hutter B, Singh M (1998) Host vector system for high-level expression and purification of recombinant, enzymatically active alanine dehydrogenase of <i>Mycobacterium tuberculosis</i>. Gene 212:21-29.</li> <li>5. Delforge D, Depiereux E, Bolle XD, Feytmans E, Remacle J (1993) Similarities between alanine dehydrogenase and the N-terminal part of pyridine nucleotide transhydrogenase and their possible implication in the virulence mechanism of <i>Mycobacterium tuberculosis</i>. Biochem Biophys Res Commun 190:1073-1079.</li> <li>6. Bardou F, Quémard A, Dupont M, Horn C, Marchal G, Daffé M (1996) Effects of isoniazid on ultrastructure of <i>Mycobacterium aurum</i> and <i>Mycobacterium tuberculosis</i> and on production of secreted proteins. Antimicrob Agents Chemother 40:2459-2467.</li> <li>7. Weldingh K, Rosenkrands I, Jacobsen S, Rasmussen PB, Elhay MJ, Andersen P (1998) Two-dimensional electrophoresis for Analysis of <i>Mycobacterium tuberculosis</i> culture filtrate and purification and characterization of six novel proteins. Infect Immun 66:3492-3500.</li> </ol>
------------	---

**CONDITIONS**

Unless otherwise marked, all products are for research use only. Not for use in diagnostic procedures. Not for use in human therapeutic applications. For in vitro use or further manufacture only. The information and product are offered without guarantee as the ultimate conditions of use are beyond our control. The foregoing is in lieu of all warranties, expressed or implied, including implied warranties of merchantability and fitness for a particular purpose. In no event shall BioPorto Diagnostics A/S be responsible for loss of profits or indirect consequential losses resulting from use of its products.