



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

Subclass: IgG<sub>1</sub>/κ

PRODUCT NO.	<b>HBT 10</b> (WHO no. IT-46)
PRESENTATION	Preparation: Protein-A/G purified Content: Available in 200 µL and 1 mL, 1 mg/mL Solvent: 0.01 M phosphate buffer, pH 7.4, with 0.5 M NaCl and 15 mM sodium azide Storage: In the dark at 4-8°C
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 i.v. (1,3)

## APPLICATION

Method	Usability	Dilution guideline	References
ELISA	Yes		
Immunoblotting	Yes		3,4,6,7,8
Immunohistochemistry	Not determined		

## REFERENCES

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4. Hutter B, Singh M (1998) Host vector system for high-level expression and purification of recombinant, enzymatically active alanine dehydrogenase of *Mycobacterium tuberculosis*. Gene 212:21-29.
5. Delforge D, Deplereux 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 *Mycobacterium tuberculosis*. Biochem Biophys Res Commun 190:1073-1079.
6. Bardou F, Quémar A, Dupont M, Horn C, Marchal G, Daffé M (1996) Effects of isoniazid on ultrastructure of *Mycobacterium aurum* and *Mycobacterium tuberculosis* and on production of secreted proteins. Antimicrob Agents Chemother 40:2459-2467.
7. Weldingh K, Rosenkrands I, Jacobsen S, Rasmussen PB, Elhay MJ, Andersen P (1998) Two-dimensional electrophoresis for Analysis of *Mycobacterium tuberculosis* culture filtrate and purification and characterization of six novel proteins. Infect Immun 66:3492-3500.
8. Rosenkrands I, Weldingh K, Jacobsen S, Hansen CV, Florio W, Gianetri I, Andersen P (2000) Mapping and identification of *Mycobacterium tuberculosis* proteins by two-dimensional gel electrophoresis, microsequencing and immunodetection. Electrophoresis 21:935-948.

## CONDITIONS

All products are supplied on the understanding that they are for in vitro use only. The information and product are offered without guarantee as the ultimate conditions of use are beyond our control. The animals from which this product was derived have not been exposed to or inoculated with any livestock or poultry disease agents exotic to the United States or Western Europe, and did not originate from facilities where work with exotic disease agents affecting livestock or avian species is carried out.