

PRODUCT SPECIFICATION



HBT 10 Anti *Mycobacterium tuberculosis*, L-alanine dehydrogenase Mouse monoclonal antibody

OVERVIEW	Article No.	101020 (0.2 mL), 101021 (1.0 mL)	
	Product Name	HBT 10 Anti <i>Mycobacterium tuberculosis</i> , L-alanine dehydrogenase	
	Clone ID	1C3	
	Subclass	IgG1 / Kappa	
	Specificity	HBT 10 Anti <i>Mycobacterium tuberculosis</i> , L-alanine dehydrogenase is specific for the L-alanine dehydrogenase (AlaDH or ald) of <i>Mycobacterium tuberculosis</i> (1-2).	
	Species Reactivity	HBT 10 binds to <i>Mycobacterium tuberculosis</i> and <i>Mycobacterium marinum</i> , but not <i>Mycobacterium bovis</i> (BCG) (1-2).	
	Epitope Specificity	HBT binds the 12 amino acid SAITDADFKAAG (aa 45-56) region of the L-alanine dehydrogenase of <i>Mycobacterium tuberculosis</i> (3).	
	Immunogen	Culture filtrate from <i>Mycobacterium tuberculosis</i> H37Rv	
	Fusion Partner	X63-Ag8.653.	
	Culture Medium	Dulbecco's modified Eagle's medium with 10 % fetal calf serum	
TESTED APPLICATION	Method	Usability	References
	Enzyme linked immunosorbent assay (ELISA)	Yes	
	Immunohistochemistry (IHC)	ND	
	Western Blot (WB)	Yes	1-4
PRODUCT SPECIFIC INFORMATION	In ELISA, HBT 10 reacts strongly with L-alanine dehydrogenase of <i>Mycobacterium tuberculosis</i> coated directly in the wells.		
	In western blotting of culture filtrates from <i>Mycobacterium tuberculosis</i> , HBT 10 binds strongly to a 40 kDa band identified as L-alanine dehydrogenase (AlaDH). HBT 10 reactivity to multimers of AlaDH may also be observed (1-4).		
	Interspecies analysis of HBT 10 binding specificity showed that HBT 10 reacts with <i>Mycobacterium tuberculosis</i> and <i>Mycobacterium marinum</i> , but not <i>Mycobacterium bovis</i> (BCG). This specificity is highly valuable, since HBT 10 can be used to distinguish between tuberculosis infection and BCG vaccination (1).		
PROPERTIES	Conjugation:	Unconjugated	
	Form	Liquid	
	Preparation:	Protein A	
	Concentration:	1 mg/mL \pm 10%, based on A ₂₈₀ . See Certificate of Analysis for details.	
	Solvent:	PBS, pH 7.2 – 7.4	
	Storage information:	Store at \leq -18 °C.	

SSI Antibodies

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PRODUCT SPECIFICATION

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TARGET	L-alanine dehydrogenase (AlaDH or ald) of <i>Mycobacterium tuberculosis</i> .
REFERENCES	<ol style="list-style-type: none">1. Worsaae A et al. Monoclonal antibodies produced in BALB.B10 mice define new antigenic determinants in culture filtrate preparations of <i>Mycobacterium tuberculosis</i>. J Clin Microbiol. 1988 Dec;26(12):2608-14. doi: 10.1128/jcm.26.12.2608-2614.1988.2. Ljungkvist L et al. Antibody responses against <i>Mycobacterium tuberculosis</i> in 11 strains of inbred mice: novel monoclonal antibody specificities generated by fusions, using spleens from BALB.B10 and CBA/J mice. Infect Immun. 1988 Aug;56(8):1994-8. doi: 10.1128/iai.56.8.1994-1998.1988.3. Hutter B and Singh M. Host vector system for high-level expression and purification of recombinant, enzymatically active alanine dehydrogenase of <i>Mycobacterium tuberculosis</i>. Gene. 1998 May 28;212(1):21-9. doi: 10.1016/s0378-1119(98)00134-6.4. Rosenkrands I et al. Mapping and identification of <i>Mycobacterium tuberculosis</i> proteins by two-dimensional gel electrophoresis, microsequencing and immunodetection. Electrophoresis. 2000 Mar;21(5):935-48. DOI: 10.1002/(SICI)1522-2683(20000301)21:5<935::AID-ELPS935>3.0.CO;2-P

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Conditions

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

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