

Product Data Sheet

□ Cat# MTB6381-S Rabbit Anti-M. Tuberculosis antigens (6Kda/ESAT+16kDa+38KDa/Ag85b mixture of proteins antiserum **Size:** 100 ul

Tuberculosis, MTB, or TB (short for tubercle bacillus) is a common, and in many cases lethal, infectious disease caused by various strains of mycobacteria, usually *Mycobacterium tuberculosis*. The infectious agents of tuberculosis are acid-resistant rod-like bacteria of the family Mycobacteriaceae, genus *Mycobacterium*. Individuals with HIV are at risk for infection by tuberculosis due to their impaired immune system. The only currently available vaccine as of 2012 is **bacillus Calmette–Guérin (BCG)** with live attenuated bacteria) which, while it is effective against disseminated disease in childhood, confers inconsistent protection against contracting pulmonary TB. A number of new TB vaccines are currently in phase I and II clinical trials. MVA85A (modified vaccinia Ankara 85A) is a subunit vaccine to BCG. This vaccine produces higher levels of long-lasting cellular immunity when used together with the old TB vaccine called BCG.

The closely related proteins of the antigen 85 complex, initially identified in *M. bovis* BCG are major secreted products of mycobacteria. Three closely related components, termed antigens **85A, 85B, and 85C**, have been demonstrated in *M. bovis* BCG and *M. tuberculosis*. Although the antigens are genetically distinct, they are highly homologous and cross-react with polyclonal and monoclonal antibodies raised against individual components. Sequence analysis revealed 85% identity between the *M. bovis* BCG 85A and 85B proteins. Many mycobacterial antigens have been identified, such as 71, 65, 38, 23, 19, 16, 14 and 12-kDa proteins. The 38-kDa protein is an immunodominant lipoprotein antigen isolated as a component of antigen 5 by affinity chromatography, and is specific only for the *M. tuberculosis* complex. It is the most extensively studied antigen. The 16-kDa antigen is an immunodominant antigen, frequently called 14 kDa, related to the family of low molecular weight heat-shock proteins. This antigen contains B-cell epitopes specific for the *M. tuberculosis* complex.

Source of Antibodies and Antigen

Antigen	Recombinant purified <i>M. tuberculosis</i> antigens (6Kda/ESAT+16kDa+38KDa/Ag85b mixture)
Ab Host/type	Rabbit, Polyclonal antiserum, (Cat # MTB6381-S)
2-Ab	Cat # 20320, goat anti-rabbit IgG-HRP (AP, biotin, FITC conjugates also available).
-ve	Cat # 20009-1, Rabbit (non-immune) Serum IgG, purified, suitable for ELISA, Western, IHC as –ve control

Store antibodies at -20oC in cool and dry place. Reconstitute powder in water or other buffer and store frozen at -20oC or below for long term storage.

Usage

ELISA or Western and IF/IHC
Optimize concentration of the antibody for each technique.

References: Mustafa A (1999) *Inf. Imm.* 67, 5683-5689; Al_attiya R (2003) *Inf. Imm.* 71, 1953-1960; Renshaw PS (2005) *EMBO J.* 24, 2491-2498; Meher Ak (2006) *FEBS J.* 273, 1445-1462; Sorensen AL (1995) *Inf. Immun.* 63, 1710-1717; Berthet FX (1998) *Microbiol.* 144, 3195-3203; Brodin P (2006) *Inf. Immun.* 74, 88-98; Renshaw PS (2002) *JBC* 277, 21598-21603
This item is for LABORATORY RESEARCH USE ONLY.

Related Items

- HSP701-M Monoclonal Anti-M. tuberculosis Heat Shock Protein 65 (hsp65/groEL-2/Cpn60-2) IgG
- HSP701-P Heat shock protein (*M. leprae* HSP65; 417-429) specific P62 peptide (LLQAAPALDKLKL, MW:1393.7)
- HSP652-P Heat shock protein (*M. leprae*/*M. tuberculosis* HSP65; 417-429) P38 peptide (AGGGVTLQAAPALD, MW:1353.5)
- HSP653-P Heat shock protein (*M. leprae* HSP65; 343-355) P61 peptide (RVAQIRTEIENSD, MW:1530.7)
- HSP654-P Heat shock protein (*M. bovis* HSP65; 243-255) indicator peptide in HLA-DQ2 binding assays (KPLLLIAEDVEGEY, MW:1588.8)
- HSP701-M Monoclonal Anti-M. tuberculosis Heat Shock Protein 70 (hsp70/Dnak/ML2496) IgG
- MTB061-M Monoclonal Anti-Mycobacterium tuberculosis antigen (6kDa/ESAT-6) IgG
- MTB06-R Recombinant purified (*E. coli*) *Mycobacterium tuberculosis* antigen (6kDa/ESAT-6)
- MTB161-M Monoclonal Anti-Mycobacterium tuberculosis antigen (16kDa/Hspx) IgG
- MTB16-R Recombinant purified (*E. coli*) *Mycobacterium tuberculosis* antigen (16kDa/Hspx)
- MTB381-M Monoclonal Anti-Mycobacterium tuberculosis antigen 38kDa/Ag85B IgG
- MTB38-R Recombinant purified (*E. coli*) *Mycobacterium tuberculosis* antigen (38kDa/Ag85B)
- MTB6381-S Anti-M. Tuberculosis antigens (6Kda/ESAT+16kDa+38KDa/Ag85b mixture of proteins antiserum
- RP-628 Recombinant purified *Mycobacterium Tuberculosis* Heat Shock Protein 70 (hsp70/Dnak/ML2496)
- RP-999 Recombinant purified *Mycobacterium Tuberculosis* major secretory protein Antigen 85B (38kda Antigen, Ag85b)

Catalog#	ProdDescription
990-100-THA	Human Anti-Mycobacterium Tuberculosis IgA ELISA
990-110-THG	Human Anti-Mycobacterium Tuberculosis IgG ELISA
990-120-THM	Human Anti-Mycobacterium Tuberculosis IgM ELISA
990-210-TMG	Mouse Anti-Mycobacterium Tuberculosis IgG ELISA
990-220-TMM	Mouse Anti-Mycobacterium Tuberculosis IgM ELISA
990-230-06G	Mouse Anti-M. Tuberculosis 6kDa/ESAT-6 IgG ELISA
990-235-06M	Mouse Anti-M. Tuberculosis 6kDa/ESAT-6 IgM
990-240-16G	Mouse Anti-M. Tuberculosis 16kDa/Hspx IgG ELISA
990-245-16M	Mouse Anti-M. Tuberculosis 16kDa/Hspx IgM ELISA
990-250-38G	Mouse Anti-M. Tuberculosis 38kda/Ag85b IgG ELISA
990-255-38M	Mouse Anti-M. Tuberculosis 38kda/Ag85b IgM ELISA
990-260-38G	Human Anti-M. Tuberculosis MVA vaccine (38kda/Ag85b) IgG ELISA kit,
990-265-38M	Human Anti-M. Tuberculosis MVA vaccine (38kda/Ag85b) IgM ELISA kit,
990-310-TRG	Rabbit Anti-Mycobacterium Tuberculosis IgG ELISA
990-320-TRM	Rabbit Anti-Mycobacterium Tuberculosis IgM ELISA
990-400-MTG	Monkey Mycobacterium Tuberculosis IgG ELISA kit,
990-410-MTM	Monkey Mycobacterium Tuberculosis IgM ELISA kit,

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