

Product Data Sheet

□ Cat # RV20311-M      Monoclonal Anti-M. tuberculosis Rv2031 dormant protein (H37Rv strain) IgG      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*. Tuberculosis typically attacks the lungs, but can also affect other parts of the body. 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.

The closely related proteins of the **antigen 85 complex** 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. Many other 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 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.

<b>Antigen</b>	Recombinant protein Rv2031 from H37Rv
<b>Ab Host/type</b>	Mouse, Monoclonal , IgG1 <b>cat # RV2031-M</b> Supplied in PBS, pH 7.5 containing 0.05% azide,
<b>2-ab</b>	Goat Anti-mouse IgG-HRP conjugate Cat # 40320 (AP, biotin, FITC conjugates also available)
<b>-ve control IgG</b>	Cat # 20008-1, Mouse (non-immune) Serum IgG, purified, suitable for ELISA, Western, IHC as –ve control

Store antibody at 40oC for short term use and frozen at -20oC or below for long term storage. Reconstitute powder in water and store frozen.

**Isotype Controls for mouse IgG1**

Catalog#	ProdDescription
20102-101	Mouse IgG1 isotype control, purified
20102-101-1	Mouse IgG1 isotype control, purified
20102-101-APC	Mouse IgG1-APC conjugate (isotype control)
20102-101-B	Mouse IgG1-Biotin conjugate (isotype control)
20102-101-F	Mouse IgG1-FITC conjugate (isotype control)
20102-101-FP	Mouse IgG1-FITC-PE conjugate (isotype control)
20102-101-HP	Mouse IgG1-HRP conjugate (isotype control)
20102-101-PC5	Mouse IgG1-PE-Cy5 conjugate (isotype control)
20102-101-PE	Mouse IgG1-PE conjugate (isotype control)

**Specificity**

Rv2031-M Recognizes amino acid sequence corresponding to Rv2031 gene.

**References:** Cole ST (1998) Nature 393, 537-544; 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**

Catalog#	ProdDescription
HSP651-M	Monoclonal Anti-M. tuberculosis Heat Shock Protein 65 (hsp65/groEL-2/Cpn60-2) IgG
HSP651-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 (RVAQIRTEIENS, 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)
RV20311-M	130331A

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