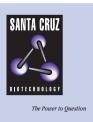
# SANTA CRUZ BIOTECHNOLOGY, INC.

# MT 16 kDa antigen (5E376): sc-71627



# BACKGROUND

*Mycobacterium tuberculosis* is a slow-growing obligate aerobic bacillus that causes most cases of tuberculosis (TB). It is a small, rod-like microbe that can withstand weak disinfectants and survive in a dry state for weeks but can only grow within a host organism. *M. tuberculosis* has a thick waxy cell wall that is responsible for the typical caseous granuloma formation in tuberculosis. TB infection begins when the mycobacteria reach the pulmonary alveoli, where they invade and replicate within alveolar macrophages. Bacteria are picked up by dendritic cells, which transport them to local lymph nodes. The bacteria may be further spread through the bloodstream to the more distant tissues and organs where secondary TB lesions can develop in lung apexes, peripheral lymph nodes, kidneys, brain and bone. The 16 kDa antigen of *Mycobacterium tuberculosis* (MT 16 kDa antigen) provokes specific immune responses in an infected host, making it a target for peptide-based diagnostic reagents and subunit vaccines.

## REFERENCES

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- Devi, K.R., et al. 2002. Purification and characterization of three immunodominant proteins (38, 30 and 16 kDa) of *Mycobacterium tuberculosis*. Protein Expr. Purif. 24: 188-195.
- Raja, A., et al. 2002. Immunoglobulin G, A and M responses in serum and circulating immune complexes elicited by the 16 kDa antigen of *Mycobacterium tuberculosis*. Clin. Diagn. Lab Immunol. 9: 308-312.
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## SOURCE

MT 16 kDa antigen (5E376) is a mouse monoclonal antibody raised against the 16 kDa antigen of *Mycobacterium tuberculosis* origin.

## PRODUCT

Each vial contains 100  $\mu g~lg G_{2a}$  in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

### **APPLICATIONS**

MT 16 kDa antigen (5E376) is recommended for detection of the 16 kDa antigen of *M. tuberculosis* origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000).

Molecular Weight of MT 16 kDa antigen: 16 kDa.

#### **RECOMMENDED SECONDARY REAGENTS**

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-mouse IgG-HRP: sc-2005 (dilution range: 1:2000-1:32,000) or Cruz Marker<sup>™</sup> compatible goat anti-mouse IgG-HRP: sc-2031 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048.

#### **STORAGE**

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

#### **RESEARCH USE**

For research use only, not for use in diagnostic procedures.

#### PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.