

Mycobacterium tuberculosis RV3134 Dormancy Regulon (G1): sc-52108

BACKGROUND

Mycobacterium tuberculosis is the most common cause of tuberculosis and is one of the world's most harmful human pathogens. It is a Gram-positive obligate anaerobe that divides slowly (every 15 to 20 hours). *M. tuberculosis* is only able to grow within a host organism and is able to persist within humans for long periods in a dormant state without causing any overt disease symptoms. Rv2623, an ATP-binding protein, is an *M. tuberculosis* dormancy regulon that may be involved in the response to environmental signals by *M. tuberculosis*. Expression of Rv2623 increases *in vitro* at reduced oxygen tensions, but is independent of phase of growth. Rv2623 shares homology with a family of prokaryotic universal stress proteins. RV3134, a related protein, is also an *M. tuberculosis* regulon.

REFERENCES

1. Sherman, D.R., et al. 2001. Regulation of the *Mycobacterium tuberculosis* hypoxic response gene encoding α -crystallin. Proc. Natl. Acad. Sci. USA 98: 7534-7539.
2. Florczyk, M.A., et al. 2001. Identification and characterization of mycobacterial proteins differentially expressed under standing and shaking culture conditions, including Rv2623 from a novel class of putative ATP-binding proteins. Infect. Immun. 69: 5777-5785.
3. Boon, C. and Dick, T. 2002. *Mycobacterium bovis* BCG response regulator essential for hypoxic dormancy. J. Bacteriol. 184: 6760-6767.
4. Parish, T., et al. 2003. Deletion of two-component tuberculosis. Infect. Immun. 71: 1134-1140.
5. Shi, L., et al. 2003. Expression of Th1-mediated immunity in mouse tuberculosis transcription pattern characteristic of nonreplicating persistence. Proc. Natl. Acad. Sci. USA 100: 241-246.
6. Voskuil, M.I., et al. 2003. Inhibition of respiration by nitric oxide induces a *Mycobacterium tuberculosis* dormancy program. J. Exp. Med. 198: 705-713.

SOURCE

Mycobacterium tuberculosis RV3134 Dormancy Regulon (G1) is a mouse monoclonal antibody raised against *Mycobacterium tuberculosis* RV3134 recombinant protein of dormancy regulon.

PRODUCT

Each vial contains 100 μ g IgG₁ in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Mycobacterium tuberculosis RV3134 Dormancy Regulon (G1) is recommended for detection of *M. tuberculosis* RV3134 dormancy regulon of *Mycobacterium tuberculosis* origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000).

RESEARCH USE

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

STORAGE

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

SELECT PRODUCT CITATIONS

1. Wang, J., et al. 2015. *Mycobacterium tuberculosis* suppresses innate immunity by coopting the host ubiquitin system. Nat. Immunol. 16: 237-245.
2. Li, J., et al. 2015. *Mycobacterium tuberculosis* Mce3E suppresses host innate immune responses by targeting ERK1/2 signaling. J. Immunol. 194: 3756-3767.
3. Qiang, L., et al. 2019. *Mycobacterium tuberculosis* Mce2E suppresses the macrophage innate immune response and promotes epithelial cell proliferation. Cell. Mol. Immunol. 16: 380-391.

PROTOCOLS

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