

TIM-3 (RMT3-23): sc-53771

BACKGROUND

CD4⁺ T helper lymphocytes can be divided into types 1(Th1) and 2 (Th2) on the basis of their cytokine secretion patterns. Th1 cells and their associated cytokines are involved in cell-mediated immunity to intracellular pathogens and delayed-type hypersensitivity reactions. Th2 cells are involved in the control of extracellular helminthic infections and the promotion of atopic and allergic diseases. T cell Ig- and Mucin-domain-containing molecules (TIMs) are a family of molecules expressed on T cells. TIM-3 is a Th1-specific cell surface protein that regulates macrophage activation and enhances the severity of experimental autoimmune encephalomyelitis in mice. TIM-3 binds galectin-9 thereby inducing apoptosis of Th1 cells. This interaction with galectin-9 also stimulates the phosphorylation of Tim-3 on residue Y265 by the interleukin inducible T cell kinase, Emt.

REFERENCES

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7. Simmons, W.J., et al. 2005. TIM-3⁺ T-bet⁺ tumor-specific Th1 cells co-localize with and inhibit development and growth of murine neoplasms. *J. Immunol.* 174: 1405-1415.
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CHROMOSOMAL LOCATION

Genetic locus: Havcr2 (mouse) mapping to 11 B1.1.

SOURCE

TIM-3 (RMT3-23) is a rat monoclonal antibody raised against TIM-3 of mouse origin.

PRODUCT

Each vial contains 100 µg IgG_{2a} in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

TIM-3 (RMT3-23) is recommended for detection of TIM-3 of mouse origin by immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 µg per 1 x 10⁶ cells).

Suitable for use as control antibody for TIM-3 siRNA (m): sc-72015, TIM-3 shRNA Plasmid (m): sc-72015-SH and TIM-3 shRNA (m) Lentiviral Particles: sc-72015-V.

Molecular Weight of TIM-3: 33 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Immunofluorescence: use goat anti-rat IgG-FITC: sc-2011 (dilution range: 1:100-1:400) or goat anti-rat IgG-TR: sc-2782 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 2) Immunohistochemistry: use ABC: sc-2019 rat IgG Staining System.

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.