

TIM-3 (E-18): sc-30326

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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3. Sabatos, C.A., et al. 2003. Interaction of TIM-3 and TIM-3 ligand regulates T helper type 1 responses and induction of peripheral tolerance. *Nat. Immunol.* 4: 1102-1110.
4. Online Mendelian Inheritance in Man, OMIM[™]. 2003. Johns Hopkins University, Baltimore, MD. MIM Number: 606652. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
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6. Khademi, M., et al. 2004. T Cell Ig- and Mucin-domain-containing molecule-3 (TIM-3) and TIM-1 molecules are differentially expressed on human Th1 and Th2 cells and in cerebrospinal fluid-derived mononuclear cells in multiple sclerosis. *J. Immunol.* 172: 7169-7176.
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.
8. Koguchi, K., et al. 2006. Dysregulated T cell expression of TIM-3 in multiple sclerosis. *J. Exp. Med.* 203: 1413-1418.
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CHROMOSOMAL LOCATION

Genetic locus: HAVCR2 (human) mapping to 5q33.3; Havcr2 (mouse) mapping to 11 B1.1.

SOURCE

TIM-3 (E-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of TIM-3 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-30326 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TIM-3 (E-18) is recommended for detection of TIM-3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

TIM-3 (E-18) is also recommended for detection of TIM-3 in additional species, including equine.

Suitable for use as control antibody for TIM-3 siRNA (h): sc-72034, TIM-3 siRNA (m): sc-72015, TIM-3 shRNA Plasmid (h): sc-72034-SH, TIM-3 shRNA Plasmid (m): sc-72015-SH, TIM-3 shRNA (h) Lentiviral Particles: sc-72034-V 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) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker[™] compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker[™] Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz[™] Mounting Medium: sc-24941.

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.



Try **TIM-3 (RMT3-23): sc-53771**, our highly recommended monoclonal alternative to TIM-3 (E-18).