

Anti-Mouse TIM3 PE


Catalog Number: 12-5871

Also Known As: TIM-3, HAVCR2, T cell immunoglobulin domain, mucin-like domain

RUO: For Research Use Only

Product Information

Contents: Anti-Mouse TIM3 PE

 Catalog Number: 12-5871

Clone: 8B.2C12

Concentration: 0.2 mg/ml

Host/Isotype: Rat IgG1, κ

Formulation: aqueous buffer, 0.09% sodium azide, may contain carrier protein/stabilizer



Temperature Limitation: Store at 2-8°C. Do not freeze. Light sensitive material.



Batch Code: Refer to Vial



Use By: Refer to Vial



Caution, contains Azide

Description

The 8B.2C12 monoclonal antibody reacts with mouse Tim-3, a Th1-specific cell surface protein. Tim-3, a type I transmembrane protein, contains an immunoglobulin and a mucin-like domain in its extracellular portion and a tyrosine phosphorylation motif in its cytoplasmic portion. Tim-3 is expressed selectively by differentiated CD4⁺Th1 and CD8⁺Tc1 cells, but is absent on CD4⁺Th2 and CD8⁺Tc2 cells. Other hematopoietic cell types, including naïve T cells, B cells, macrophages and dendritic cells, do not express Tim-3, at least at the protein level. Tim-3 expression is upregulated at a late stage of T cell differentiation on Th1 cells after 3 rounds of *in vitro* polarization suggesting a role for this molecule in the transport or effector function of Th1 cells rather than a contribution to T cell differentiation. In an experimental autoimmune encephalomyelitis (EAE) model, Tim-3 was shown to be expressed on most CD4⁺ and CD8⁺ T cells in the central nervous system at the onset of clinical signs of disease, while less than 2% of CD4⁺ cells in the periphery expressed Tim-3 after immunization. In this model, *in vivo* administration of 8B.2C12 resulted in a hyperacute and atypical disease phenotype. It is postulated that the engagement of Tim-3 during T cell activation results in the expansion and activation of macrophages and increased severity of an autoimmune disease. The Tim gene family may have an important role in the regulation of autoimmunity and allergies.

The 8B.2C12 antibody binds to the Tim-3 BALB/c allele. Reactivity to the C57/BL6 is significantly weaker than BALB/c.

Applications Reported

8B.2C12 has been reported for use in flow cytometric analysis.

Applications Tested

The 8B.2C12 antibody has been tested by flow cytometric analysis of mouse splenocytes and mouse Tim-3 transfected cells and can be used at less than or equal to 0.06 µg per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10⁵ to 10⁸ cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

References

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McIntire J.J., S.E. Umetsu, et al. 2001. Identification of Tapr (an airway hyperreactivity regulatory locus) and the linked Tim gene family. *Nat Immunol.* 2(12):1109-16.

Beauregard C, Stevens C, Mayhew E, Niederkorn JY. Cutting edge: atopy promotes Th2 responses to alloantigens and increases the incidence and tempo of corneal allograft rejection. *J Immunol.* 2005 Jun 1;174(11):6577-81. (IHC, PubMed)

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Related Products

12-4301 Rat IgG1 K Isotype Control PE

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