Leinco Technologies, Inc.
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Anti-Mouse CD366 (Tim-3) [Clone RMT3-23] — Purified *in vivo* GOLD™ Functional Grade

Monoclonal Antibody

Product Information

Product No.: T700

Clone:	RMT3-23
RRID:	AB_2737574
Isotype:	Rat Rat IgG2a κ
Storage:	Sterile 2-8°C

Product Description

Specificity:
Tim-3 antibody (clone RMT2-23) recognizes an epitope on mouse Tim-3.

Antigen Distribution:
Tim-3 is expressed on activated Th1 and Tc1 lymphocytes, CD11b+ macrophages, Tregs, NK cells, and mast cells.

Background:
Tim-3 antibody (clone RMT3-23) recognizes T cell immunoglobulin and mucin domain-containing protein 3 (TIM3, also known as CD366), a TIM family member of immunoregulatory proteins. Tim-3 is a 60kDa type I transmembrane protein with an extracellular immunoglobulin and mucin-like domain and a cytoplasmic tyrosine phosphorylation motif. Tim-3 is expressed by IFNg-producing Th1 CD4 and Tc1 (cytotoxic) CD8 T cells[1], regulatory T cells (Tregs)[2], myeloid cells[3], NK cells[4], and mast cells[5]. Tim-3 is an inhibitory molecule that limits Th1-mediated inflammatory diseases, including a model of central nervous system inflammation (experimental autoimmune encephalomyelitis, EAE)[1], inflammatory bowel disease (IBD)[6], and type I diabetes[7]. Tim-3 is also proposed to induce immunological tolerance[7], promote Th1 apoptosis[8], and regulate macrophage activation1. In addition, Tim-3 is upregulated on tumor-infiltrating lymphocytes, and coblockade of Tim-3 and immune checkpoint inhibitors, such as PD-1, is currently being investigated in clinical trials for the treatment of cancer[9].

Known Reactivity Species:
Mouse

Format:
in vivo GOLD™, Purified in vivo Functional Grade

Products are for research use only. Not for use in diagnostic or therapeutic procedures.

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Immunogen:
This antibody was produced using recombinant mouse TIM-3

Formulation
This monoclonal antibody is aseptically packaged and formulated in 0.01 M phosphate buffered saline (150 mM NaCl) PBS pH 7.2 - 7.4 with no carrier protein, potassium, calcium or preservatives added. Due to inherent biochemical properties of antibodies, certain products may be prone to precipitation over time. Precipitation may be removed by aseptic centrifugation and/or filtration.

Purity
≥95% monomer by analytical SEC, >95% by SDS Page

Endotoxin
< 1.0 EU/mg as determined by the LAL method

Storage and Stability
Functional grade preclinical antibodies may be stored sterile as received at 2-8°C for up to one month. For longer term storage, aseptically aliquot in working volumes without diluting and store at ≤ -70°C. **Avoid Repeated Freeze Thaw Cycles.**

Product Preparation
Functional grade preclinical antibodies are manufactured in an animal free facility using *in vitro* cell culture techniques and are purified by a multi-step process including the use of protein A or G to assure extremely low levels of endotoxins, leachable protein A or aggregates.

Applications
Applications and Recommended Usage (Quality Tested By Leinco):

FC The suggested concentration for Tim-3 antibody (clone RMT3-23) for staining cells in flow cytometry is ≤ 1.0 µg per 10^6 cells in a volume of 100 µl or 100µl of whole blood. Titration of the reagent is recommended for optimal performance for each application.

Other Applications Reported in Literature:

B
IHC

Country of Origin
USA

References
1. Monney, L. et al. (2002)Nature 415, 536–541.
2. Gao, X. et al. (2012) PLOS ONE 7, e30676.
3. Anderson, A. C. et al. (2007) Science 318, 1141–1143.
4. Ndhlovu, L. C. et al. (2012) Blood 119, 3734–3743.

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5. Phong, B. L. et al. J. (2015) Exp. Med. 212, 2289–2304.
6. Li, X. et al. (2010) Clin. Immunol. 134, 169–177.
7. Sanchez-Fueyo, A. et al. (2003) Nat. Immunol. 4, 1093–1101.
8. Zhu C, et al.. Nature Immunology. 2005;6:1245–1252.

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