

Anti-Mouse TIGIT (1G9) Purified *in vivo* PLATINUM™ Functional Grade Hybridoma Monoclonal Antibody

Product Information

Product No.: T736
Clone: 1G9
Isotype: Mouse IgG1 κ

Product Description

Specificity:

Clone 1G9 activity is directed against mouse TIGIT.

Antigen Distribution:

TIGIT is expressed on NK cells, activated T cells, memory T cells, and a subset of regulatory T cells.

Background:

TIGIT is an immunoreceptor that inhibits multiple immune cell responses, including T cell priming by dendritic cells, tumor cell killing by NK cells and cytotoxic T cells, and also enhances the immune suppressive activity of regulatory T cells¹. TIGIT is a novel member of the Ig-superfamily distantly related to Nectins and Neclns that aligns with the distal Ig-V-type domains of Nectin1-4, poliovirus receptor (PVR; CD155), DNAM-1 (CD226), and TACTILE (CD96)². TIGIT is an attractive target for cancer therapy due to its role as an immune checkpoint^{1,3}. Immunotherapy targeting TIGIT and the PD-1/PD-L1 pathway is capable of tumor suppression.

1G9 was generated by immunizing TIGIT^{-/-} mice with recombinant mouse TIGIT tetramers³. Draining lymph nodes were collected and fused with Sp2/0-Ag14. Supernatants were screened for specific binding by anti-TIGIT ELISA and flow cytometry. Hybridomas that showed TIGIT-specific binding were expanded and subcloned and single colonies sorted by flow cytometry. Comparative immunofluorescence staining of activated primary TIGIT-expressing wildtype T cells and TIGIT^{-/-} T cells was performed to confirm specificity. 1G9 was found to fully block TIGIT binding to CD155, a high-affinity TIGIT ligand. However, 1G9 does not deplete TIGIT⁺ cells *in vivo* under steady-state conditions. Additionally, 1G9 does not affect T cell proliferation *in vitro*. 1G9 has agonistic anti-TIGIT activity *in vivo*, leading to a reduction in T cell expansion and pro-inflammatory cytokine production, and is also able to reduce experimental autoimmune encephalomyelitis (EAE) severity in mice.

Known Reactivity Species:

Mouse

Format:

in vivo PLATINUM™

Immunogen:

Recombinant murine TIGIT tetramers.

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

≥98% monomer by analytical SEC, >95% by SDS Page

Endotoxin

≤ 0.5 EU/mg as determined by the LAL method

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

Product Datasheet

www.leinco.com



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 $\leq -70^{\circ}\text{C}$. **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.

Pathogen Testing

To protect mouse colonies from infection by pathogens and to assure that experimental preclinical data is not affected by such pathogens, all of Leinco's Purified Functional PLATINUM™ antibodies are tested and guaranteed to be negative for all pathogens in the IDEXX IMPACT I Mouse Profile.

Other Applications Reported in Literature:

ELISA,

FA,

FC

Country of Origin

USA

References

- 1 Harjunpää H, Guilleroy C. Clin Exp Immunol. 200(2):108-119. 2020.
- 2 Boles KS, Vermi W, Facchetti F, et al. Eur J Immunol. 39(3):695-703. 2009.
- 3 Dixon KO, Schorer M, Nevin J, et al. J Immunol. 200(8):3000-3007. 2018.

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