

Anti-Human TCR Vα24-Jα18 (iNKT cell) Purified *in vivo* PLATINUM™ Functional Grade Monoclonal Antibody

Product Information

Product No.: T1705
Clone: 6B11
RRID: AB_2894348
Isotype: Mouse IgG1 κ
Storage: Sterile 2-8°C

Product Description

Specificity:

Clone 6B11 recognizes the invariant CDR3 region of the human Vα24-Jα18 TCR.

Antigen Distribution:

The Vα24-Jα18 TCR is expressed on iNKT cells.

Background:

TCR Vα24-Jα18 antibody, 6B11, recognizes the CDR3 region of the V alpha 24 and J alpha 18 TCR alpha locus (Vα24-Jα18). The Vα24-Jα18 semi-invariant TCR is expressed on a highly conserved T cell subset, named invariant natural killer T (iNKT cells), which also express NK cell-associated molecules. The Vα24-Jα18 TCR recognizes lipid antigens, such as α-galactosylceramide (α-GalCer), presented by the MHC class I-like molecule CD1d¹. Following activation, iNKT cells rapidly proliferate and produce large amounts of IL-4, IFNγ, and cytolytic mediators^{2,3}. iNKT cells have both inflammatory and immunoregulatory functions and are implicated in anti-tumor immunity, protection against infections, suppression of autoimmunity, and the development of inflammatory diseases⁴.

Known Reactivity Species:

Human

Format:

Purified *in vivo* Functional Grade, *in vivo* PLATINUM™

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

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.

Pathogen Testing

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

Product Datasheet

www.leinco.com



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.

Applications

Applications and Recommended Usage (Quality Tested By Leinco):

FC The suggested concentration for this TCR Vα24-Jα18 antibody for staining cells in flow cytometry is $\leq 1.0 \mu\text{g}$ per 10^6 cells in a volume of 100 μl or 100 μl of whole blood. Titration of the reagent is recommended for optimal performance for each application.

Other Applications Reported in Literature:

CyTOF®

Country of Origin

USA

References

1. Van Kaer L., et al. (2004) Nat Rev Immunol. 4(3):231-7
2. Teyton L., et al. (2006) Annu Rev Immunol. 25:297-336
3. Kronenberg M. (2004) Annu Rev Immunol. 23:877-900
4. Van Kaer L & Wu L. (2018) Front Immunol. 9:519

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