

Mouse RANKL (CD254) Antibody

Purified *in vivo* GOLD™ Functional Grade

Monoclonal Antibody

Product Information

Product No.: R1352

Clone: IK22/5

RRID: AB_2831709

Isotype: Rat IgG2a κ

Storage: Sterile 2° to 8°C

Product Description

Specificity:

Clone IK22/5 recognizes an epitope on mouse RANKL.

Antigen Distribution:

RANKL is expressed on activated T cells and osteoclasts

Background:

RANKL antibody, clone IK22/5, recognizes receptor activator of NF- κ B ligand (RANKL), also known as CD254, TNF-related activation-induced cytokine (TRANCE), tumor necrosis factor ligand superfamily member 11 (TNFSF11), osteoprotegerin ligand (OPGL), and osteoclast differentiation factor (ODF). RANKL is a type II transmembrane protein belonging to the TNF cytokine superfamily and binds to the signaling receptor, RANK, or decoy receptor, osteoprotegerin (OPG). RANKL is expressed on osteoclasts and is essential for osteoclast differentiation, activation, and survival¹. RANKL is also expressed on activated T cells and regulates T cell-dendritic cell (DC) interactions, enhancing DC activation and survival²⁻³. In addition, RANKL is crucial for lymph node, bone marrow, and thymus development⁴. Treatment with denosumab, an antibody directed against RANKL, is approved for the treatment of patients at high risk for bone fractures, including osteoporosis, and has shown anti-tumor effects⁵.

Known Reactivity Species:

Mouse

Format:

Purified *in vivo* GOLD™ Functional Grade

Immunogen:

Purified Recombinant Mouse RANKL (NSO-derived)

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

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

410 Axminster Dr, St. Louis, MO 63026

(800) 538-1145

leincoglobal@leinco.com

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° to 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 RANKL antibody, clone IK22/5 for staining cells in flow cytometry is ≤ 0.25 µg per 10⁶ 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.

WB The suggested concentration for this RANKL antibody for use in western blotting is 1-10 µg/ml.

Other Applications Reported in Literature:

B
IP

Country of Origin

USA

References

- 1) Park JH, et al. (2017) Mol Cells. 40(10):706-713
- 2) Wong BR, et al. (1997) J Biol Chem. 272(40):25190-4
- 3) Anderson, D. M., et al. (1997) Nature 390:175.
- 4) Ono T, et al. (2020) Inflamm Regen. 2020;40:2.
- 5) de Groot AF, et al. (2018) Cancer Treat Rev. 62:18-28