

ORDERING INFORMATION

Catalog Number: MAB3480

Clone: 402659

Lot Number: ZIW02

Size: 100 µg

Formulation: 0.2 µm filtered solution in PBS with 5% trehalose

Storage: -20° C

Reconstitution: sterile PBS

Specificity: human OCIL

Immunogen: *E. coli*-derived rhOCIL and human OCIL/BaF3 transfectants

Ig class: mouse IgG₁

Recommended Application:
Flow cytometry

Other Application:
Direct ELISA

Background

Human OCIL (osteoclast inhibitory lectin; also LLT1 and CLEC-2D) is a member of the NK cell receptor group of the C-type lectin superfamily. It is a type II transmembrane protein 191 amino acids (aa) in length that contains a C-terminal 132 aa extracellular domain (ECD). Within the ECD lies a C-type lectin domain (aa 75 - 186). There are at least two alternate splice forms of OCIL. Both exhibit splicing in the ECD. One shows a 40 aa substitution for the C-terminal 37 amino acids. A second shows a 3 aa substitution for the C-terminal 72 amino acids. The ECD of human OCIL is 49% and 50% aa identical to the ECD in mouse and rat OCIL ECD, respectively. The molecule is found on hematopoietic cells, osteoblasts and chondrocytes. It binds sulfated GAGs and NKR-P1B and D receptors, and blocks osteoclast formation.

Preparation

This antibody was produced from a hybridoma resulting from the fusion of a mouse myeloma with B cells obtained from a mouse immunized with purified, *E. coli*-derived, recombinant human OCIL (rhOCIL; aa 57 - 191; Accession # NP_037401) and Ba/F3 cells transfected with human OCIL. The IgG fraction of the tissue culture supernatant was purified by Protein G affinity chromatography.

Formulation

Lyophilized from a 0.2 µm filtered solution in phosphate-buffered saline (PBS) with 5% trehalose.

Reconstitution

Reconstitute with sterile PBS. If 0.2 mL of PBS is used, the antibody concentration will be 500 µg/mL.

Storage

Lyophilized samples are stable for twelve months from date of receipt when stored at -20° C to -70° C. Upon reconstitution, the antibody can be stored at 2° - 8° C for 1 month without detectable loss of activity. Reconstituted antibody can also be aliquotted and stored frozen at -20° C to -70° C in a manual defrost freezer for six months without detectable loss of activity. **Avoid repeated freeze-thaw cycles.**

Specificity

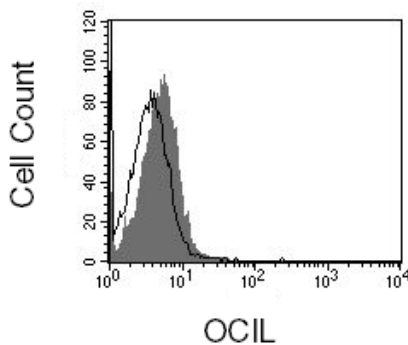
This antibody detects rhOCIL in direct ELISAs. This antibody stains human OCIL transfectants but not irrelevant transfectants.

Applications

Flow cytometry - This antibody was validated for flow cytometry using Raji cells. Dilute this antibody to 25 µg/mL and add 10 µL of the diluted solution to 1 - 2.5 x 10⁵ cells in a total reaction volume not exceeding 200 µL. The binding of unlabeled monoclonal antibodies may be visualized by adding a secondary developing reagent such as goat anti-mouse IgG conjugated to a fluorochrome.

Direct ELISA - This antibody can be used at 0.5 - 1.0 µg/mL with the appropriate secondary reagents to detect human OCIL. The detection limit for rhOCIL is approximately 1 ng/well.

Optimal dilutions should be determined by each laboratory for each application.



Raji cells were stained with anti-OCIL (R&D Systems, Cat. # MAB3480, filled histogram) or isotype control antibody (R&D Systems, Cat. # MAB002, open histogram), followed by PE-conjugated anti-mouse antibody (R&D Systems, Cat. # F0102B).