

Technical Data Sheet

InVivoMAb anti-rat CD45RC (OX22)



Attention: Use of this product constitutes an agreement to Bio X Cell's Terms and Conditions which are included with this product in print and can also be found at <https://bioxccl.com/terms-and-conditions>.

Lot Specific Information

Lot Number: Lot Specific*
Volume: Lot Specific*
Concentration: Lot Specific* (generally 4 to 11 mg/ml) *
Total Protein: Lot Specific*

*This information will be noted on the certificate of analysis that ships with this product.

Product Information

Catalog Number: BE0475
Clone: OX-22
Isotype: Mouse IgG1, κ
Recommended Isotype Control(s): InVivoMAb mouse IgG1 isotype control, unknown specificity
Recommended Dilution Buffer: InVivoPure pH 7.0 Dilution Buffer
Immunogen: Phytohemagglutinin-activated rat lymph node cells
Reported Applications: *in vivo* depletion of CD45RChigh cells
ex vivo depletion of CD45RChigh cells
in vitro selection of CD45RC+ cells
in vitro functional assay
Immunohistochemistry (frozen)
Immunohistochemistry (paraffin)
Immunofluorescence
Flow cytometry
Formulation: PBS, pH 7.0
Contains no stabilizers or preservatives
Endotoxin: $\leq 1\text{EU/mg}$ ($\leq 0.001\text{EU}/\mu\text{g}$)
Determined by LAL gel clotting assay
Purity: $\geq 95\%$
Determined by SDS-PAGE
Sterility: 0.2 μm filtered
Production: Purified from cell culture supernatant in an animal-free facility
Purification: Protein G
RRID:
Molecular Weight: 150 kDa

Description

The OX-22 antibody reacts with CD45RC, an exon 5 splice variant (exon C) of the tyrosine phosphatase CD45. Distinct molecular weight isoforms of CD45 result from the differential splicing of three exons (A, B, and C) encoding a portion of the N-terminal extracellular domain. CD45RC is a single-chain type I membrane glycoprotein, and it is expressed on B cells, the majority of CD8+ T cells, and about three-quarters of CD4+ T cells, but not on myeloid cells. From a functional perspective, the CD45RC molecule is involved in lymphocyte signaling and is associated with inflammatory responses (e.g., defective IL-2 production in Long-Evans Cinnamon rats' peripheral CD4+ T cells). CD45RC expression levels in rats define CD4 T cells to have two different functional subpopulations with unique cytokine profiles, i.e., CD45RChigh or CD45RClow. The OX22 antibody is commonly used as a CD45RC marker to detect and isolate these sub-populations. In some *in vivo* studies, the antibody is also used to deplete CD45RChigh subsets. CD45RClow T cells exhibit strong immunoregulatory properties, particularly in Tregs, while memory T cells can be found in both CD45RChigh and CD45RClow subsets. CD45RC is a promising target in preclinical immunotherapy studies, and its precise targeting helps to manage severe immune-mediated

conditions like Graft-versus-Host Disease (GvHD) and autoimmune diseases without compromising beneficial anti-tumor or antiviral immunity.

Storage

Store at the stock concentration at 4°C . **Do not freeze.**

It is not uncommon for a floccule or precipitate to appear during storage. The floccule is typically buffer salts precipitating out of solution or a small bit of protein aggregation. For information on how to remove floccules or precipitates see our FAQ's at <https://bioxcell.com/faqs>.

Protocol Information

Since applications vary, each investigator should use the application references as a guide to help estimate the appropriate dose or concentration. The dose or concentration can be further optimized experimentally in a dose response or titration experiment.

Application References

For a complete list of references, visit https://bioxcell.com/be0475?bxcs=9k1b3a#tab_references or scan the QR code below.



Bio X Cell, LLC

<https://bioxcell.com>

+1-866-787-3444

customerservice@bioxcell.com

Conditions: For research use only. Not for use in diagnostic or therapeutic procedures.

Not for resale.

Bio X Cell, Bio X Cell logo, and all other trademarks are the property of Bio X Cell, LLC © 2025 Bio X Cell, LLC