



Monoclonal Anti-mouse CD45 Antibody

ORDERING INFORMATION

Catalog Number: MAB3507

Clone: 319211

Lot Number: XFY02

Size: 100 µg

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

Storage: -20° C

Reconstitution: sterile PBS

Specificity: mouse CD45

Immunogen: NS0-derived rmCD45

Ig class: rat IgG_{2b}

Recommended Applications:

Western blot
Flow cytometry

Other Application:

Direct ELISA

Preparation

This antibody was produced from a hybridoma resulting from the fusion of a mouse myeloma with B cells obtained from a rat immunized with purified, NS0-derived, recombinant mouse CD45 (rmCD45; aa 24 - 425; Accession # NP_035340). The IgG fraction of the tissue culture supernatant was purified by Protein G affinity chromatography. CD45 is a transmembrane protein tyrosine phosphatase. It is expressed at high levels on the cell surface of all nucleated hematopoietic cells and their precursors.² Alternative splicing of CD45 mRNA results in the expression of several distinct isoforms that are differentially expressed in cells of different lineage and activation states.

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 was selected for its ability to detect mouse CD45 in direct ELISAs and western blots.

Applications

Western Blot - This antibody can be used at 1 - 2 µg/mL with the appropriate secondary reagents to detect mouse CD45. Using a colorimetric detection system, the detection limit for rmCD45 is approximately 25 ng/lane under non-reducing conditions. Use of this antibody under reducing conditions is not recommended. Chemiluminescent detection with WesternGlo Chemiluminescent Detection Substrate (R&D Systems, Catalog # AR004) will increase sensitivity by 5 to 50 fold.

Flow Cytometry - 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 10 µL of a 25 µg/mL stock solution of a secondary developing reagent such as goat anti-rat 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 mouse CD45. The detection limit for rmCD45 is approximately 10 ng/well.

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