

Product Information

ANTI-CD30, MOUSE

Developed in Goat
Affinity Isolated Antibody

Product Number **C 3104**

Product Description

Anti-CD30 is developed in goat using purified recombinant mouse CD30 extracellular domain, expressed in mouse NSO cells as immunogen. CD30 specific IgG is purified from goat serum using mouse CD30 affinity chromatography.

Anti-CD30 recognizes recombinant mouse CD30 by immunoblotting and ELISA. In immunoblotting and ELISA, this antibody does not cross-react with recombinant human CD30.

Reduced mouse CD30/Fc monomer has a calculated molecular mass of approximately 55 kDa. Due to glycosylation, the recombinant protein migrates as an approximately 90 -100 kDa protein in SDS-PAGE under reducing conditions.

CD30 is a type I transmembrane glycoprotein of the TNF receptor superfamily. The extracellular domain of recombinant mouse CD30/Fc¹ is fused to the carboxy-terminal 6X histidine-tagged Fc portion of human IgG1 by a polypeptide linker. CD30 was originally identified as a cell surface antigen of Hodgkin's and Reed-Sternberg cells using monoclonal antibody Ki-1.³ The ligand for CD30 is CD30L (CD153). Human and mouse CD30 ligand share approximately 72% amino acid sequence identity. The binding of CD30 to CD30L mediates pleiotropic effects including cell proliferation, activation, differentiation, and apoptotic cell death. CD30 has a critical role in the pathophysiology of Hodgkin's disease and other CD30+ lymphomas. CD30 acts as a costimulatory molecule in thymic negative selection.²

In addition to its expression on Hodgkin's and Reed-Sternberg cells³, CD30 is also found in some non-Hodgkin's lymphomas (including Burkitt's lymphomas), virus-infected T and B cells, and on normal T and B cells after activation.⁴ In T cells, CD30 expression is present on a subset of T cells that produce Th2-type cytokines and on CD4+/CD8+ thymocytes that coexpress CD45RO and the IL-4 receptor.

Reagent

Anti-CD30 is supplied as 100 µg of antibody lyophilized from a 0.2 µm filtered solution in phosphate buffered saline.

Preparation Instructions

To one vial of lyophilized powder, add 1 ml of 0.2 µm-filtered solution of phosphate-buffered saline (PBS) to produce a 0.1 mg/ml stock solution of antibody. If aseptic technique is used, no further filtration should be needed for use in cell culture environments.

Storage/Stability

Prior to reconstitution, store at -20°C. The reconstituted product may be stored at 2-8°C for at least one month. For prolonged storage, freeze in working aliquots at -20°C. Avoid repeated freezing and thawing.

Product Profile

For ELISAs, a working concentration of 0.5-1.0 µg/ml detects approximately 0.16 ng/well of recombinant human CD30.

For immunoblotting, a working concentration of 0.1-0.2 µg/ml detects mouse CD30 at approximately 5 ng/lane and 25 ng/lane under non-reducing and reducing conditions, respectively.

Note: In order to obtain best results in different techniques and preparations we recommend determining optimal working dilutions by titration test.

Endotoxin: <10 ng/mg antibody determined by the LAL method.

References

1. Bowen, M.A., et al., Structure and expression of murine CD30 and its role in cytokine production. *J. Immunol.*, **156**, 442-449 (1996).
2. Chiarle, R., et al., CD30 overexpression enhances negative selection in the thymus and mediates programmed cell death via a Bcl-2-sensitive pathway. *J. Immunol.* **163**, 194-205 (1999).
3. Durkop, H., et al., Molecular cloning and expression of a new member of the nerve growth factor receptor family is characteristic for Hodgkin's disease. *Cell*, **68**, 421-427 (1992).
4. Gruss, H.J., et al., CD30 ligand expression in nonmalignant and Hodgkin's disease-involved lymphoid tissues. *Am. J. Pathol.*, **149**, 469-481 (1996).

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