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## Product Information

### ANTI-CD30, HUMAN

Developed in Goat  
Affinity Isolated Antibody

Product Number **C 5979**

#### Product Description

Anti-CD30 is developed in goat using purified recombinant human CD30 extracellular domain, expressed in insect *Sf 21* cells, as immunogen. CD30 specific IgG is purified from goat serum using human CD30 affinity chromatography.

Anti-CD30 recognizes recombinant human CD30 by immunoblotting and ELISA. In immunoblotting and ELISA, this antibody demonstrates less than 1% cross-reactivity with recombinant mouse CD30.

Reduced human CD30/Fc monomer has a calculated molecular mass of approximately 66 kDa. Due to glycosylation, the recombinant protein migrates as an approximately 100 -110 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 human CD30<sup>1</sup> is fused to the carboxy-terminal 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. 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 co-stimulatory molecule in thymic negative selection.<sup>2</sup>

In addition to its expression on Hodgkin's and Reed-Sternberg cells<sup>1</sup>, 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.<sup>3</sup> 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 a limit of approximately 0.16 ng/well of human CD30.

For immunoblotting, a working concentration of 0.1-0.2 µg/ml detects human 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. 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).

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. 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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