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 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.

In addition to its expression on Hodgkin’s and Reed-Sternberg cells, 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. 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