

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse CD30/TNFRSF8 in ELISAs and Western blots. In sandwich immunoassays, no cross-reactivity or interference with recombinant mouse (rm) TNF RI/TNFRSF1A, recombinant human (rh) TNF RI/TNFRSF1A, rhTNF RII/TNFRSF1B, rmTNF-α/TNFSF2, rhTNF-
Source	Monoclonal Rat IgG _{2A} Clone # 115705
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse CD30/TNFRSF8 Phe19-Thr281 Accession # Q60846
Conjugate	Alexa Fluor 405 Excitation Wavelength: 405 nm Emission Wavelength: 421 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

ELISA Capture (Matched Antibody Pair)	Optimal dilution of this antibody should be experimentally determined.
ELISA Detection (Matched Antibody Pair)	Optimal dilution of this antibody should be experimentally determined.
Western Blot	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

CD30, also known as Ki-1 antigen and TNFRSF8, is a 120 kDa type I transmembrane glycoprotein belonging to the TNF receptor superfamily (1, 2). Mature mouse CD30 consists of a 264 amino acid (aa) extracellular domain (ECD) with three cysteine-rich repeats, a 27 aa transmembrane segment, and a 190 aa cytoplasmic domain (3). In contrast, human CD30 includes an additional 90 aa in the ECD and contains six cysteine-rich repeats. Within common regions of the ECD, mouse CD30 shares 53% and 80% aa sequence identity with human and rat CD30, respectively. CD30 is normally expressed on antigen-stimulated Th cells and B cells (4-6). However, it is upregulated in Hodgkin's disease (on Reed-Sternberg cells), other lymphomas, chronic inflammation, and autoimmunity (7). CD30 binds to CD30 Ligand/TNFSF8 which is expressed on activated Th cells, monocytes, granulocytes and medullary thymic epithelial cells (1, 5). CD30 signaling costimulates antigen-induced Th0 and Th2 proliferation and cytokine secretion but favors a Th2-biased immune response (8). In the absence of antigenic stimulation, it can still induce T cell expression of IL-13 (9). CD30 contributes to thymic negative selection by inducing the apoptotic cell death of CD4⁺CD8⁺ T cells (10, 11). In B cells, CD30 ligation promotes cellular proliferation and antibody production in addition to the expression of CXCR4, CCL3, and CCL5 (5, 12). An 85-90 kDa soluble form of CD30 is shed from the cell surface by TACE-mediated cleavage (13, 14). Soluble CD30 retains the ability to bind CD30 Ligand and functions as an inhibitor of normal CD30 signaling (15).

PRODUCT SPECIFIC NOTICES

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