Mouse CD30/TNFRSF8 Antibody

Monoclonal Rat IgG_{2A} Clone # 115705

Catalog Number: MAB8521

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-α/TNFSF2, rhTNF-β/TNFSF1, rhCD30/TNFRSF8, or rmCD30 Ligand/TNFSF8 is observed. In Western blots, no cross-reactivity with rhNGFR/TNFRSF16, rmOPG/TNFRSF11B, rmRANK/TNFRSF11A, rmTNF RI/TNFRSF1A, rmTNF RII/TNFRSF1B, rmEDAR, rmTAJ/TNFSF19, rmLTRβ/TNFRSF3, rm4-1BB/TNFRSF9, rmCD27/TNFRSF7, rhCD30/TNFRSF8, rmCD40/TNFRSF5, rhDR3/TNFRSF12, rhDR6/TNFRSF21, rmFas/TNFRSF6, rmGITR/TNFRSF18, or rhHVEM/TNFRSF14 is observed.
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
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 μm filtered solution in PBS.

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.*

	Recommended Concentration	Sample
Western Blot	1 µg/mL	Recombinant Mouse CD30/TNFRSF8 Fc Chimera (Catalog # 852-CD)
Mouse CD30/TNFRSF8 Sandwich Immunoassay		**Reagent**
ELISA Capture	2-8 µg/mL	Mouse CD30/TNFRSF8 Antibody (Catalog # MAB8521)
ELISA Detection	0.1-0.4 µg/mL	Mouse CD30/TNFRSF8 Biotinylated Antibody (Catalog # BAF852)
Standard		Recombinant Mouse CD30/TNFRSF8 Fc Chimera (Catalog # 852-CD)

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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).

References:

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