

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects CD30/TNFRSF8 in direct ELISAs and Western blots. In direct ELISAs and Western blots, no cross-reactivity with recombinant human CD30 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse CD30/TNFRSF8 Phe19-Thr281 Accession # Q60846
Endotoxin Level	<0.10 EU per 1 µg of the antibody by the LAL method.
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 as a 0.2 µm filtered solution in PBS.

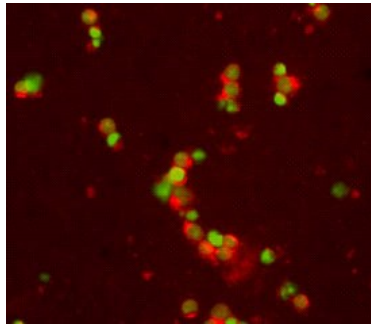
APPLICATIONS

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	0.1 µg/mL	Recombinant Mouse CD30/TNFRSF8 Fc Chimera (Catalog # 852-CD)
Immunocytochemistry	5-15 µg/mL	See Below
Agonist Activity	Measured by its ability to stimulate mouse splenic B cell proliferation in the presence of IL-4 and IL-5. Shanebeck K.D. <i>et al.</i> (1995) <i>Eur. J. Immunol.</i> 25 :2147. The ED ₅₀ for this effect is typically 1-3 µg/mL.	

DATA

Immunocytochemistry



CD30/TNFRSF8 in Mouse Splenocytes. CD30/TNFRSF8 was detected in immersion fixed mouse splenocytes using 15 µg/mL Goat Anti-Mouse CD30/TNFRSF8 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF852) for 3 hours at room temperature. Cells were stained (red) and counterstained (green). View our protocol for [Fluorescent ICC Staining of Non-adherent Cells](#).

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 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. <ul style="list-style-type: none"> • 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/TNFRSF8 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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