

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human CD30 Ligand/TNFSF8 in direct ELISAs. In direct ELISAs, no cross-reactivity with recombinant human (rh) CD27 Ligand, recombinant mouse CD30 Ligand, or rhCD40 Ligand is observed.
Source	Monoclonal Mouse IgG _{2B} Clone # 116614
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human CD30 Ligand/TNFSF8 Gln63-Asp234 Accession # P32971
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 either lyophilized or as a 0.2 µm filtered solution in PBS.

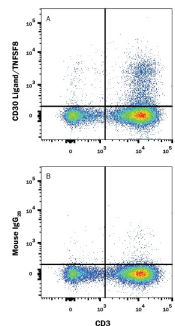
APPLICATIONS

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
Flow Cytometry	0.25 µg/10 ⁶ cells	See Below
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	
Neutralization	Measured by its ability to neutralize CD30 Ligand/TNFSF8-induced IL-6 secretion in the HDLM human Hodgkin's lymphoma cell line. The Neutralization Dose (ND ₅₀) is typically 1-4 µg/mL in the presence of 1 µg/mL Recombinant Human CD30 Ligand/TNFSF8 and 10 µg/mL of a cross-linking antibody, Mouse polyHistidine Monoclonal Antibody.	

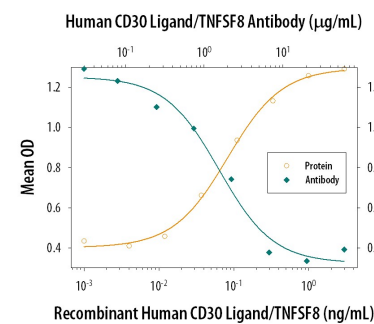
DATA

Flow Cytometry



Detection of CD30 Ligand/TNFSF8 in Human PBMCs by Flow Cytometry. Human peripheral blood mononuclear cells (PBMCs) treated with 50 ng/mL PMA and 200 ng/mL Calcium Ionomycin overnight were stained with Mouse Anti-Human CD30 Ligand/TNFSF8 APC-conjugated Monoclonal Antibody (Catalog # [FAB100A](#)) and either (A) Mouse Anti-Human CD30 Ligand/TNFSF8 Monoclonal Antibody (Catalog # [MAB1028](#)) or (B) Mouse IgG_{2B} Isotype Control (Catalog # [MAB004](#)) followed by Allophycocyanin-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # [F0101B](#)). View our protocol for [Staining Membrane-associated Proteins](#).

Neutralization



IL-6 Secretion Induced by CD30 Ligand/TNFSF8 and Neutralization by Human CD30 Ligand/TNFSF8 Antibody. In the presence of a cross-linking antibody, Mouse polyHistidine Monoclonal Antibody (10 µg/mL, Catalog # [MAB050](#)), Recombinant Human CD30 Ligand/TNFSF8 (Catalog # [1028-CL](#)) stimulates IL-6 secretion in the HDLM human Hodgkin's lymphoma cell line in a dose-dependent manner (orange line), as measured by the Human IL-6 Quantikine ELISA Kit (Catalog # [D6050](#)). Under these conditions, IL-6 secretion elicited by Recombinant Human CD30 Ligand/TNFSF8 (1 µg/mL) is neutralized (green line) by increasing concentrations of Mouse Anti-Human CD30 Ligand/TNFSF8 Monoclonal Antibody (Catalog # [MAB1028](#)). The ND₅₀ is typically 1-4 µg/mL.

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. <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 ligand (CD30L)/TNFSF8 is a type II membrane protein belonging to the TNF superfamily. CD30L is expressed on the cell surface of activated T cells, B cells, and monocytes. The protein is also constitutively expressed on granulocytes and medullary thymic epithelial cells. The specific receptor for CD30L is CD30/TNFRSF8, a type I transmembrane glycoprotein belonging to the TNF receptor superfamily. CD30 was originally identified as a cell surface antigen of Hodgkin's and Reed-Sternberg cells using the monoclonal antibody Ki-1. CD30 is also expressed on different non-Hodgkin's lymphomas, virus-infected T and B cells, and on normal T and B cells after activation. Among T cells, CD30 is preferentially expressed on a subset of T cells producing Th2-type cytokines and on CD4⁺/CD8⁺ thymocytes that coexpress CD45RO and IL-4 receptor. CD30 ligation by CD30L mediates pleiotropic effects including cell proliferation, activation, differentiation and cell death by apoptosis. CD30 can act as a costimulatory molecule in thymic negative selection and may also play a critical role in the pathophysiology of Hodgkin's disease and other CD30⁺ lymphomas. Human and mouse CD30 ligand cDNAs share 70% sequence homology.

References:

1. Brunangelo, F. *et al.* (1995) *Blood* **85**:1.
2. Gruss, H.-J. and F. Herrmann (1996) *Leukemia and Lymphoma* **20**:397.
3. Chiarle, R. *et al.* (1999) *J. Immunol.* **163**:194.