

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human CD30 ligand/TNFSF8 in direct ELISAs.
Source	Monoclonal Mouse IgG _{2A} Clone # 116621
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived human CD30 Ligand/TNFSF8. Gln63-Asp234 Accession # P32971
Conjugate	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 nm
Formulation	Supplied 0.2 mg/mL in a saline solution containing BSA and 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.

	Recommended Concentration	Sample
Flow Cytometry	0.25-1 µg/10 ⁶ cells	Human peripheral blood mononuclear cells (PBMCs) treated with Cell Activation Cocktail 500x (Catalog # 5476)

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. <ul style="list-style-type: none"> 12 months from date of receipt, 2 to 8 °C as supplied.

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 co-express 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 co-stimulatory 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. Duckett, C.S. *et al.* (1997) *Mol. Cell. Biol.* **17**:1535.
3. Chiarle, R. *et al.* (1999) *J. Immunol.* **163**:194.

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