

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human OX40 Ligand in direct ELISAs. In direct ELISAs, no cross-reactivity with recombinant human (rh) APRIL, rhBAFF, rhCD27 Ligand, recombinant mouse (rm) CD27 Ligand, rhCD30 Ligand, rmCD30 Ligand, rhCD40 Ligand, rmEDA, rhFas Ligand, rmFas Ligand, rhGITR Ligand, recombinant cotton rat TNF-α, rhTNF-α, rmTNF-α, recombinant porcine TNF-α, recombinant rat TNF-α, rhTRAIL, rhTRANCE, rmTRANSE, or rhVEGF is observed.
Source	Monoclonal Mouse IgG ₁ Clone # 159403
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human OX40 Ligand Gln51-Leu183 Accession # P23510
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm
Formulation	Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details. *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 mature dendritic cells differentiated from human peripheral blood mononuclear cell derived CD14 ⁺ cells treated with Recombinant Human IL-4 (Catalog # 204-IL), Recombinant Human GM-CSF (Catalog # 215-GM), LPS, Recombinant Human TNF-α (Catalog # 210-TA), and Recombinant Human IL-1β/IL-1F2 (Catalog # 201-LB)

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

OX40 Ligand (OX40L), also known as gp34, is a type II transmembrane glycoprotein designated TNFSF4 within the TNF superfamily. Human OX40L cDNA encodes a 183 amino acids (aa) polypeptide with an amino-terminal cytoplasmic domain (aa 1-23) and a carboxy-terminal extracellular domain (aa 51-183). It shares 46% aa sequence identity with the mouse counterpart. OX40L is expressed on the surface of activated B cells, T cells, dendritic cells and endothelial cells. Like other TNF superfamily members, membrane-bound OX40 Ligand exists as a homotrimer. OX40L binds to OX40 (CD134), a member of the TNF receptor superfamily that is expressed predominantly on activated CD4⁺ T cells. OX40 Ligand is one of the group of co-stimulatory molecules in the immune system that includes B7, CD40 Ligand, CD30 Ligand, CD27 Ligand and 4-1BB Ligand. OX40 appears as a late activation-induced T cell surface antigen, and its major function of OX40-OX40L interaction may be to transmit a late co-stimulatory signal to promote the survival and proliferation of activated CD4⁺ T cells and prolong the immune response. Engagement of OX40 on activated T cells *in situ* in tumors has been shown to augment immune responses and subsequent tumor regression.

References:

1. Godfrey, W.R. *et al.* (1994) J. Exp. Med. **180**:757.
2. Baum, P.R. *et al.* (1994) EMBO J. **13**:3992.
3. Al-Shamkhani, A. *et al.* (1997) J. Biol. Chem. **272**:5275.
4. Kjaergaard, J. *et al.* (2000) Cancer Res. **60**:5514.

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