# Mouse OX40 Ligand/TNFSF4 Biotinylated Antibody

Monoclonal Rat $IgG_{2B}$ Clone # 182603

Catalog Number: BAM12361

## DESCRIPTION

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| **Species Reactivity** | Mouse |
| **Specificity** | Detects mouse OX40 Ligand/TNFSF4 in ELISAs. In sandwich immunoassays, no cross-reactivity or interference with recombinant mouse (rm) OX40, recombinant human (rh) OX40 Ligand, rmFas Ligand, rmLIGHT, or rhLIGHT is observed. |
| **Source** | Monoclonal Rat $IgG_{2B}$ Clone # 182603 |
| **Purification** | Protein A or G purified from hybridoma culture supernatant |
| **Immunogen** | Mouse myeloma cell line NS0-derived recombinant mouse OX40 Ligand/TNFSF4<br>Gln49-Leu198<br>Accession # P43488 |
| **Formulation** | Lyophilized from a 0.2 μm filtered solution in PBS with BSA as a carrier protein. See Certificate of Analysis for details. |

## 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.*

| ***Mouse OX40 Ligand/TNFSF4 Sandwich Immunoassay*** | | **Reagent** |
|---|---|---|
| **ELISA Capture** | 2-8 µg/mL | Mouse OX40 Ligand/TNFSF4 Antibody (Catalog # MAB12362) |
| **ELISA Detection** | 0.5-2.0 µg/mL | Mouse OX40 Ligand/TNFSF4 Biotinylated Antibody (Catalog # BAM12361) |
| **Standard** | | Recombinant Mouse OX40 Ligand/TNFSF4 (Catalog # 1236-OX) |

## PREPARATION AND STORAGE

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| **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. |
| **Stability & Storage** | **Use a manual defrost freezer and avoid repeated freeze-thaw cycles.**<br>● 12 months from date of receipt, -20 to -70 °C as supplied.<br>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.<br>● 6 months, -20 to -70 °C under sterile conditions after reconstitution. |

## BACKGROUND

OX40 Ligand (OX40L), also known as gp34, is a type II transmembrane glycoprotein belonging to the TNF superfamily. Murine OX40L cDNA encodes a 198 amino acid (aa) protein comprised of a 28 aa N-terminal cytoplasmic domain, a 20 aa transmembrane segment, and a 150 aa C-terminal extracellular domain (1). Human and mouse OX40L share 46% sequence identity at the amino acid level (1). OX40L is expressed on activated antigen presenting cells such as B cells, macrophages, dendritic cells, and on endothelial cells at the site of inflammation. The receptor for OX40L is OX40 (CD134) which is expressed predominantly on activated $CD4^+$ T cells. Expression of OX40 is transient following engagement of T cell receptors (2). Ligation of OX40L by OX40 stimulates proliferation and differentiation of activated B cells, and increases immunoglobulin secretion (3, 4). The expression of OX40L on B cells is upregulated by CD40 ligation (3). Engagement of the OX40-OX40L system has co-stimulatory effects on T cells by stimulating the production of cytokines by T helper cells and increasing the survival of memory T cells (2, 5). Blocking of the OX40-OX40L interaction *in vitro* inhibits co-stimulation resulting in decreased T cell proliferation and adhesion of T cells to endothelial cells. Inhibition of the OX40-OX40L interaction in disease models has beneficial effects in acute graft-versus-host disease, inflammatory bowel disease and decreases the development of collagen-induced arthritis and experimental leishmaniasis (6).

**References:**


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4. Malstrom, V. *et al.* (2001) J. Immunol. **166**:6972.
5. Maxwell, J.R. *et al.* (2000) J. Immunol. **164**:107.
6. Weinberg, A.D. (2002) Trends Immunol. **23**:102.




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