

## DESCRIPTION

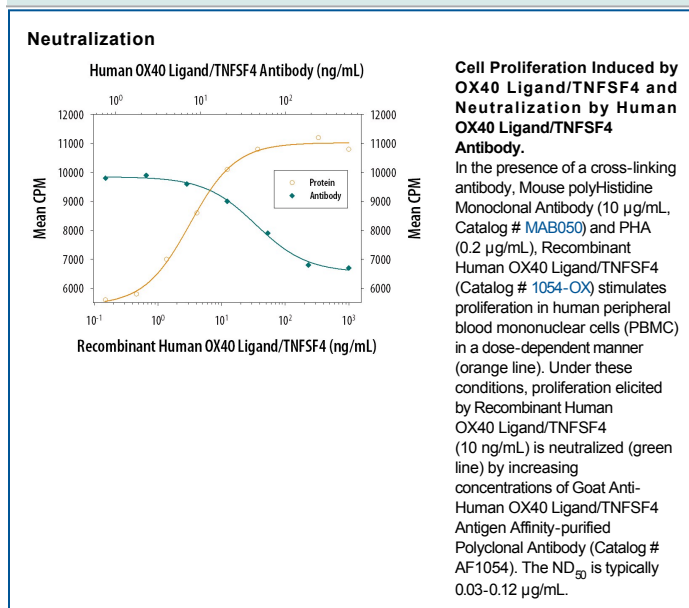
<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human OX40 Ligand/TNFSF4 in direct ELISAs and Western blots. In direct ELISAs, less than 5% cross-reactivity with recombinant mouse OX40 Ligand/TNFSF4 is observed.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant human OX40 Ligand/TNFSF4 Gln51-Leu183 Accession # Q6FGS4
<b>Endotoxin Level</b>	<0.10 EU per 1 µg of the antibody by the LAL method.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. 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.

	Recommended Concentration	Sample
<b>Western Blot</b>	0.1 µg/mL	Recombinant Human OX40 Ligand/TNFSF4 (Catalog # 1054-OX)
<b>Neutralization</b>		Measured by its ability to neutralize OX40 Ligand/TNFSF4-induced proliferation in human peripheral blood mononuclear cells (PBMC). The Neutralization Dose (ND <sub>50</sub> ) is typically 0.03-0.12 µg/mL in the presence of 10 ng/mL Recombinant Human OX40 Ligand/TNFSF4, 10 µg/mL of a cross-linking antibody, Mouse polyHistidine Monoclonal Antibody, and 0.2 µg/mL PHA.

## DATA



## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.2 mg/mL in sterile PBS.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	<p><b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b></p> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>● 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

## BACKGROUND

OX40 Ligand (OX40L), also known as gp34, is a type II transmembrane glycoprotein belonging to 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. Similarly to 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<sup>+</sup> T cells. OX40 Ligand is one of the co-stimulatory molecules in the immune system that includes B7, CD40 Ligand, CD30 Ligand, CD27 Ligand, and 4-1BB Ligand. Because OX40 appears as a late activation-induced T cell surface antigen, it has been speculated that the major function of OX40-OX40L interaction is to transmit a late co-stimulatory signal to promote the survival and proliferation of activated CD4<sup>+</sup> 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.