

DESCRIPTION

Source	Mouse myeloma cell line, NS0-derived			
	MHHHHHHHHHH	GGSGGGSGGGS	IEGR	Human OX40 Ligand (Gln51-Leu183) Accession # Q6FGS4
	N-terminus			C-terminus

N-terminal Sequence Met

Analysis

Predicted Molecular Mass 18 kDa

Mass

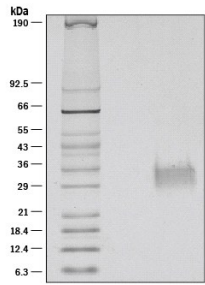
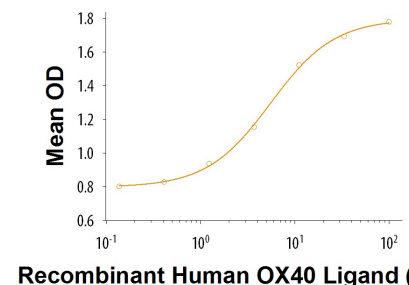
SPECIFICATIONS

SDS-PAGE	28-34 kDa, reducing conditions
Activity	Measured by its ability to induce IL-8 secretion in HT1080 human fibrosarcoma cells transfected with human OX40/TNFRSF4. Muller, N. <i>et al.</i> (2008) FEBS J. 275 :2296. The ED ₅₀ for this effect is typically 1-5 ng/mL. Measured by its binding ability in a functional ELISA. When Recombinant Human OX40/TNFRSF4 Fc Chimera (Catalog # 3388-OX) is immobilized at 10 ng/mL, the concentration of Recombinant Human OX40 Ligand/TNFSF4 that produces 50% optimal binding response is found to be approximately 0.5-3 ng/mL.
Endotoxin Level	<1.0 EU per 1 µg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE under reducing conditions and visualized by silver stain.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 100 µg/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. <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. ● 3 months, -20 to -70 °C under sterile conditions after reconstitution.

DATA

<p>SDS-PAGE</p>  <p>1 µg/lane of Recombinant Human OX40 Ligand/TNFSF4 was resolved with SDS-PAGE under reducing (R) conditions and visualized by silver staining, showing bands at 28-34 kDa.</p>	<p>Bioactivity</p>  <p>Recombinant Human OX40 Ligand/TNFSF4 (Catalog # 1054-OX) induces IL-8 secretion in the HT1080 human fibrosarcoma cell line. The ED₅₀ for this effect is typically 1-5 ng/mL.</p>
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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+ 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+ 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. AlShamkhani, A. *et al.* (1997) *J. Biol. Chem.* **272**:5275.
4. Kjaergaard, J. *et al.* (2000) *Cancer Res.* **60**:5514.