

## OX40 Ligand/TNFSF4 Protein, Human (HEK293, His)

<b>Cat. No.:</b>	HY-P70622
<b>Synonyms:</b>	Tumor necrosis factor ligand superfamily member 4; Glycoprotein Gp34; OX40 ligand; OX40L; TAX transcriptionally-activated glycoprotein 1; TNFSF4; CD252; TXGP1
<b>Species:</b>	Human
<b>Source:</b>	HEK293
<b>Accession:</b>	P23510 (Q51-L183)
<b>Gene ID:</b>	7292
<b>Molecular Weight:</b>	20-30 kDa

### PROPERTIES

<b>AA Sequence</b>	<p>Q V S H R Y P R I Q    S I K V Q F T E Y K    K E K G F I L T S Q    K E D E I M K V Q N</p> <p>N S V I I N C D G F    Y L I S L K G Y F S    Q E V N I S L H Y Q    K D E E P L F Q L K</p> <p>K V R S V N S L M V    A S L T Y K D K V Y    L N V T T D N T S L    D D F H V N G G E L</p> <p>I L I H Q N P G E F    C V L</p>
<b>Appearance</b>	Lyophilized powder.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution of 20 mM PB, 150 mM NaCl, pH 7.4.
<b>Endotoxin Level</b>	<1 EU/µg, determined by LAL method.
<b>Reconstitution</b>	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH <sub>2</sub> O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
<b>Storage &amp; Stability</b>	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
<b>Shipping</b>	Room temperature in continental US; may vary elsewhere.

### DESCRIPTION

<b>Background</b>	<p>OX40 Ligand (TNFSF4) is a type II glycoprotein with a cytoplasmic tail of 23 aa and an extracellular domain of 133 aa<sup>[1]</sup>. OX40 Ligand is expressed on antigen-presenting cells, such as B cells, dendritic cells (DCs), and macrophages, and airway smooth muscle cells<sup>[3]</sup>. OX40 Ligand is a ligand for TNFRSF4 (CD134), belongs to tumor necrosis factor (TNF) family. OX40 Ligand can activate OX40 and thereby functioning as a T cell co-stimulatory molecule. The OX40-OX40 Ligand interaction promotes effector T-cell survival and effectively induces memory T-cell generation, as well as enhances the helper function of Tfh for B cells, and also promotes the differentiation and maturation of DCs<sup>[1][2]</sup>. Human OX40 Ligand shares &lt;70% aa sequence identity with mouse, rat and rabbit. The interaction between OX40 Ligand with OX40 is essential for the generation of antigen-specific memory T cells, and</p>
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induces host antitumor immunity<sup>[4]</sup>. But the over-upregulation of OX40 and OX40L may induce abnormal activation of Tfh cells and excessive production of autoantibodies, which leads to autoimmune disease<sup>[1]</sup>.

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## REFERENCES

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- [2]. Fu N, et al. The OX40/OX40L Axis Regulates T Follicular Helper Cell Differentiation: Implications for Autoimmune Diseases. *Front Immunol*. 2021 Jun 21;12:670637.
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- [4]. Buglio D, et al. HDAC11 plays an essential role in regulating OX40 ligand expression in Hodgkin lymphoma. *Blood*. 2011 Mar 10;117(10):2910-7
- [5]. Ito T, et al, Duramad O, Hanabuchi S, Perng OA, Gilliet M, Qin FX, Liu YJ. OX40 ligand shuts down IL-10-producing regulatory T cells. *Proc Natl Acad Sci U S A*. 2006 Aug 29;103(35):13138-43.
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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