

OX40/TNFRSF4 Protein, Human (HEK293, His-Avi)

Cat. No.:	HY-P78503
Synonyms:	CD134; OX40; OX40L receptor; TNFRSF4; ACT-135; Ly-70; OX40 homologue; TXGP1L; IMD16
Species:	Human
Source:	HEK293
Accession:	P43489 (L29-A216)
Gene ID:	7293
Molecular Weight:	48-55 kDa

PROPERTIES

Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.22 μ m filtered solution of PBS, pH 7.4. Normally 5% trehalose is added as protectant before lyophilization.
Endotoxin Level	<1 EU/ μ g, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 μ g/mL in ddH ₂ O.
Storage & Stability	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.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	<p>OX40 (TNFRSF4), a member of TNFR superfamily, is a receptor for OX40 Ligand. OX40 is preferentially expressed by T cells, but also found in natural killer T cells, natural killer cells, neutrophils, and human airway smooth muscle cells. Human OX40 shares <30% aa sequence identity with mouse and rat. Mouse OX40 shares 90% aa sequence identity with rat^[1].</p> <p>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^{[1][2]}.</p> <p>The interaction between OX40 Ligand with OX40 is essential for the generation of antigen-specific memory T cells, and induces host antitumor immunity^[3]. 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^[1].</p>
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REFERENCES

[1]. Kaur D, et al. OX40/OX40 ligand interactions in T-cell regulation and asthma. Chest. 2012 Feb;141(2):494-499.

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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.
- [3]. 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.
- [4]. Kotani A, et al. Signaling of gp34 (OX40 ligand) induces vascular endothelial cells to produce a CC chemokine RANTES/CCL5. *Immunol Lett.* 2002 Oct 21;84(1):1-7.
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Caution: Product has not been fully validated for medical applications. For research use only.

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