Product Data Sheet

Proteins





OX40 Ligand/TNFSF4 Protein, Mouse (HEK293, Fc)

Cat. No.: HY-P77459

Synonyms: CD134L; CD252; Glycoprotein Gp34; OX40 antigen ligand; OX40L; TXGP1

Species: HEK293 Source:

Accession: P43488 (Q49-L198)

Gene ID: 22164

Molecular Weight: Approximately 42.7 kDa.

PROPERTIES	
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μ m filtered solution of PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 $\mu g/mL$ 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.

DESCRIPTION

Background

Shipping

OX40 Ligand (TNFSF4) is a type II glycoprotein with a cytoplasmic tail of 23 aa and an extracellular domain of 133 aa $^{[1]}$. OX40 Ligand is expressed on antigen-presenting cells, such as B cells, dendritic cells (DCs), and macrophages, and airway smooth muscle cells^[3]. 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 $DCs^{[1][2]}$. Mouse OX40 Ligand shares 81.31% aa sequence identity with rat, and shares <70% aa sequence identity with human. The interaction between OX40 Ligand with OX40 is essential for the generation of antigen-specific memory T cells, and induces host antitumor immunity^[4]. OX40 Ligand is critical for Th1 and Th2 responses in mice allergic inflammation^[5].

REFERENCES

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

Room temperature in continental US; may vary elsewhere.

- [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]. Croft M, et al. The significance of OX40 and OX40L to T-cell biology and immune disease. Immunol Rev. 2009 May;229(1):173-91.
- [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]. Arestides RS, et al. Costimulatory molecule OX40L is critical for both Th1 and Th2 responses in allergic inflammation. Eur J Immunol. 2002 Oct;32(10):2874-80.
- [6]. Lei W, et al. Crucial role of OX40/OX40L signaling in a murine model of asthma. Mol Med Rep. 2018 Mar;17(3):4213-4220.

Caution: Product has not been fully validated for medical applications. For research use only.

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