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

Cat. No.:	HY-P74660
Synonyms:	CD134L; CD252; Glycoprotein Gp34; OX40 antigen ligand; OX40L; TXGP1
Species:	Rat
Source:	HEK293
Accession:	P15725 (V20-P210)
Gene ID:	25572
Molecular Weight:	Approximately 65-75 kDa

PROPERTIES

AA Sequence	V T V K L N C V K D T Y P S G H K C C R E C Q P G H G M V S R C D H T R D T V C H P C E P G F Y N E A V N Y D T C K Q C T Q C N H R S G S E L K Q N C T P T E D T V C Q C R P G T Q P R Q D S S H K L G V D C V P C P P G H F S P G S N Q A C K P W T N C T L S G K Q I R H P A S N S L D T V C E D R S L L A T L L W E T Q R T T F R P T T V P S T T V W P R T S Q L P S T P T L V A P E G P
Biological Activity	Measured by its binding ability in a functional ELISA. When Recombinant Human OX40 is present at 2 μg/mL, can bind Recombinant Rat OX40 Ligand. The ED_{50} for this effect is 324.6 ng/mL.
Appearance	Lyophilized powder
Formulation	Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
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	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-OX40 Ligand signal transduction is essential in atopic asthma regulated by memory Th2 cells[5].

REFERENCES

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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

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[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.

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