

# Product Data Sheet

## OX40/TNFRSF4 Protein, Mouse (Biotinylated, HEK293, His-Avi)

Cat. No.:	HY-P78190
Synonyms:	CD134 antigen; CD134; OX40; OX40L receptor; TNFRSF4; ACT-135; ACT35 antigen; ACT35ATC35 antigen; Ly-70; OX40 cell surface antigen; OX40 homologue; OX40lymphoid activation antigene ACT35; TAX transcriptionally-activated glycoprotein 1 receptor; tax-transcrip
Species:	Mouse
Source:	HEK293
Accession:	P47741 (V20-P211)
Gene ID:	22163
Molecular Weight:	48-55 kDa

PROPERTIES	
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Biological Activity	Immobilized Mouse OX40 Ligand, hFc Tag at 2μg/ml (100μl/Well) on the plate. Dose response curve for Biotinylated Mouse OX40, His Tag with the EC <sub>50</sub> of 4.3μg/ml determined by ELISA.
Appearance	Solution.
Formulation	Supplied as a 0.22 $\mu m$ filtered solution of PBS, pH 7.4.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconsititution	N/A.
Storage & Stability	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
Shipping	Shipping with dry ice.

### DESCRIPTION

Background	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. Mouse OX40 shares 90% aa sequence identity with rat. Mouse OX40 shares <30% aa sequence identity with human <sup>[1]</sup> . 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> .
	The interaction between OX40 Ligand with OX40 is essential for the generation of antigen-specific memory T cells, and induces host antitumor immunity <sup>[3]</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> . For example, OX40 interacts with OX40 Ligand is critical for Th1 and Th2 responses in mice allergic inflammation <sup>[4]</sup> .

#### 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.

[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]. 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.

[5]. 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.

[6]. Wu LY, et al. Recombinant OX40 attenuates neuronal apoptosis through OX40-OX40L/PI3K/AKT signaling pathway following subarachnoid hemorrhage in rats. Exp Neurol. 2020 Apr;326:113179.

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

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