9051 Mira Mesa Blvd, #910094
San Diego, CA 92191
Tel: 760-390-3989

OX40L Human

OX40 Ligand Human Recombinant
CYK0493

Product Overview

Name	OX40L Human
Description	
OX40 Ligand Human Recombinant	
Accession (Primary)	P23510
Synonyms	
Tumor necrosis factor ligand superfamily member 4, OX40 ligand, OX40L, OX-40L, CD252, Tnfsf4, Ox40l, Txgp1l, gp3, OX4, Ath-1, Ath1, CD134L, gp34, Tnlg2b, Txgp1l.	
Source	
HEK293 Cells.	
Physical Appearance	
Sterile Filtered colorless solution.	
Formulation	
The OX40L solution (1mg/ml) contains 10% Glycerol and Phosphate-Buffered Saline (pH 7.4).	
Stability	
Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles .	
Purity	
Greater than 90.0% as determined by SDS-PAGE.	
Amino acid sequence	
QVSHRYPRIQ SIKVQFTEYK KEKGFILTSQ KEDEIMKVQN NSVIINCDGF YLISLKGYFS QEVNISLHYQ KDEEPLFQLK KVRSVNSLMV ASLTYKDKVY LNVTTDNTSL DDFHVNGGEL ILIHQNPGEF CVL HHHHHH.	
Biological Activity	
Measured by its binding ability in a functional ELISA with Human OX40/TNFRSF4.	
Background	
OX40 Ligand (OX40L), a member of the tumor necrosis factor (TNF) superfamily, plays a pivotal role in regulating immune responses and orchestrating the delicate balance between activation and tolerance. The human recombinant form of OX40L has emerged as a potent tool in immunology, offering insights into its molecular intricacies and potential applications in therapeutic interventions. This research embarks on a journey to unravel the multifaceted role of OX40L	

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Human Recombinant, shedding light on its structural attributes, signaling pathways, and its promising avenues in immunotherapy. By delving into the properties of OX40L, scientists aim to expand our understanding of immune modulation and open new frontiers in the treatment of immune-related disorders. Structural Insights into OX40L Human Recombinant: OX40L, as a trimeric transmembrane protein, exhibits a unique structural configuration that governs its interactions with the OX40 receptor on T cells. The human recombinant form, engineered for controlled study, provides a window into the three-dimensional intricacies of the ligand. Understanding its structure is pivotal for deciphering how OX40L engages with its receptor and modulates immune responses. Immunomodulatory Signaling Pathways: OX40L binding to its cognate receptor OX40 on T cells triggers intricate signaling cascades that impact immune cell activation, proliferation, and cytokine production. The OX40-OX40L axis is a crucial regulator of T cell function, influencing both effector and regulatory T cell responses. Unraveling the specific pathways activated by OX40L Human Recombinant provides valuable insights into the modulation of immune responses in health and disease. Applications in Immunotherapy: The immunomodulatory properties of OX40L make it an attractive candidate for therapeutic interventions. OX40L Human Recombinant, in preclinical and clinical studies, is being explored for its potential in enhancing antitumor immune responses. By harnessing the ligand's ability to stimulate effector T cells and memory T cell formation, researchers aim to develop novel immunotherapies for cancer and other immune-related disorders. OX40L in Autoimmune Diseases: Conversely, OX40L's role in autoimmune diseases has spurred investigations into its inhibition as a therapeutic strategy. Blocking the OX40-OX40L interaction has shown promise in mitigating autoimmune responses, presenting a potential avenue for the development of treatments for conditions such as rheumatoid arthritis and inflammatory bowel disease. While the potential of OX40L Human Recombinant in immunotherapy is promising, challenges persist. Fine-tuning its applications, understanding potential side effects, and optimizing dosages are critical considerations for translational success. Additionally, comprehending the context-dependent nature of OX40L signaling is essential for tailoring therapeutic strategies to specific diseases and patient profiles. OX40L Human Recombinant stands at the forefront of immunomodulation research, offering a lens through which we can unravel the complexities of immune responses. Its structural insights, signaling pathways, and therapeutic applications position it as a key player in the evolving landscape of immunotherapy. As researchers continue to dissect the molecular nuances of OX40L, they not only expand our understanding of immune regulation but also pave the way for transformative advancements in the treatment of cancer and autoimmune diseases, shaping the future of precision medicine and immunotherapy.

Precautions

OX40L Human is for research use only and not for use in diagnostic or therapeutic procedures.

Target Information: (P23510)

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Background

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