

AITR Human

AITR Human Recombinant

CYK0025

Product Overview

Name	AITR Human
Accession(Primary)	Q9Y5U5
Description	AITR Human Recombinant

Target information (Q9Y5U5)

Gene Name

About Gene Symbol

Background

AITR Human Recombinant: Unveiling its Role in Immune Regulation and Therapeutic Potential

1. Abstract This research paper aims to provide a comprehensive exploration of the AITR Human Recombinant, a crucial receptor involved in immune regulation. By examining its structure, signaling pathways, biological functions, and implications in disease, we unravel the potential therapeutic applications of AITR in immune-related disorders.

2. Introduction AITR, also known as TNFRSF18, is a receptor protein that plays a vital role in immune regulation. With its involvement in T-cell responses and immune tolerance, AITR has emerged as an intriguing target for therapeutic interventions in various immune-mediated conditions.

3. Structure and Signaling of AITR AITR is a transmembrane receptor protein belonging to the tumor necrosis factor receptor superfamily. Its extracellular domain interacts with its ligand, glucocorticoid-induced TNFR-related protein (GITR) ligand, leading to downstream signaling events that modulate immune cell function.

4. Biological Functions of AITR AITR activation influences T-cell responses by regulating T-cell activation, proliferation, and cytokine production. Additionally, AITR signaling can modulate the balance between effector and regulatory T-cell populations, thereby playing a role in immune tolerance and immune homeostasis.

5. AITR in

Disease Pathology AITR dysregulation has been associated with various immune-related disorders, including autoimmune diseases, cancer, and transplant rejection. Understanding the role of AITR in these pathologies may provide insights into potential therapeutic strategies targeting AITR signaling. 6.

Therapeutic Potential of AITR The unique role of AITR in immune regulation makes it an appealing target for therapeutic interventions. Modulation of AITR signaling holds promise for manipulating immune responses in the context of autoimmune diseases, cancer immunotherapy, and transplantation. 7.

Conclusion and Future Perspectives While our understanding of AITR and its functions has advanced significantly, further research is warranted to unravel its complex signaling pathways and therapeutic potential. Continued investigations into AITR biology will enhance our ability to develop targeted therapies for immune-related disorders.