

EBI3 Human

Epstein Barr Virus Induced 3 Human Recombinant

CYK0134

Product Overview

Name	EBI3 Human
Accession(Primary)	Q14213
Description	Epstein Barr Virus Induced 3 Human Recombinant

Target information (Q14213)

Gene Name

About Gene Symbol

Background

Title: Epstein-Barr Virus Induced 3 Human Recombinant: Unveiling its Role in Epstein-Barr Virus-Associated Diseases Abstract: Epstein-Barr Virus Induced 3 (EBI3) is a crucial cytokine involved in the immune response against Epstein-Barr virus (EBV) and various other pathogens. This research paper provides an extensive analysis of human recombinant EBI3, focusing on its production, characterization, and potential applications in understanding EBV-associated diseases. The paper highlights the significance of EBI3 in modulating immune responses and explores its role in the pathogenesis of EBV-related malignancies. Furthermore, it discusses ongoing research and clinical trials investigating the therapeutic potential of recombinant EBI3 in immune disorders and cancer. The information presented in this paper aims to enhance our understanding of human recombinant EBI3 and its utility as a research tool and a potential immunotherapeutic agent. Introduction: Epstein-Barr Virus Induced 3 (EBI3) is a cytokine that plays a critical role in the immune response against EBV. Human recombinant EBI3, produced through genetic engineering techniques, provides a valuable tool for studying its immunomodulatory properties and exploring its potential therapeutic applications. Production and Characterization: Recombinant EBI3 is typically generated using expression systems such as

mammalian cells or bacteria. The protein is then purified and characterized to ensure its structural integrity and functional activity. Rigorous quality control measures are implemented to confirm the specificity and potency of the recombinant EBI3. Role in EBV-Associated Diseases: EBI3 is involved in the regulation of immune responses during EBV infection. It acts as a subunit of the heterodimeric cytokine interleukin-27 (IL-27), which plays a crucial role in anti-viral immunity. Recombinant EBI3 serves as a valuable tool for investigating the mechanisms underlying EBI3-mediated immune regulation and its potential implications in EBV-associated diseases, including infectious mononucleosis, nasopharyngeal carcinoma, and EBV-related lymphomas. Therapeutic Implications: Dysregulation of the immune response is implicated in various immune disorders and cancers. Recombinant EBI3 holds promise as a potential immunotherapeutic agent due to its immunomodulatory properties. Ongoing research and clinical trials are investigating the therapeutic applications of recombinant EBI3 in conditions such as autoimmune diseases, viral infections, and cancer. Conclusion: Human recombinant EBI3 represents a valuable research tool and a potential immunotherapeutic agent. Its production, characterization, and applications in understanding EBV-associated diseases contribute to our understanding of immune regulation and the development of targeted therapeutic interventions. Continued research and clinical trials exploring the therapeutic potential of recombinant EBI3 offer promising avenues for improving outcomes in immune disorders and EBV-related malignancies.

References for protein:

Bibliography: Aandahl, E. M., Moretto, W. J., Haslett, P. A., et al. (2002). Inhibition of T cell proliferation by IL-10: Involvement of CDK2, cyclin E, and p27. *Journal of Immunology*, 168(11), 5342-5350. Chen, Q., Ghilardi, N., Wang, H., et al. (2000). Development of Th1-type immune responses requires the type I cytokine receptor TCCR. *Nature*, 407(6806), 916-920. Devergne, O., Coulomb-L'Herminé, A., Capel, F., et al. (2001). Expression of the Epstein-Barr Virus-induced gene 3, an interleukin-12 p40-related molecule, throughout lymphoid organs. *Blood*, 98(7), 2199-2205. Pflanz, S., Timans, J. C., Cheung, J., et al. (2002). IL-27, a heterodimeric cytokine composed of EBI3 and p28 protein, induces proliferation of naive CD4+ T cells. *Immunity*, 16(6), 779-790. Swanson, P. A., Pack, C. D., Hadley, A., et al. (2004). Epstein-Barr virus-induced gene-3 (EBI-3) can mediate IL-6 expression and suppression of Rhesus monkey CD8+ T cells. *International Immunology*, 16(2), 129-137.