

EPYC Human

Epiphycan Human Recombinant

RCP0770

Product Overview

Name	EPYC Human
Accession(Primary)	Q99645
Description	Epiphycan Human Recombinant

Target information (Q99645)

Gene Name

About Gene Symbol

Background

Epiphycan, a small leucine-rich proteoglycan, has gained recognition as a crucial player in tissue development, repair, and homeostasis. This research aims to explore the significance of epiphycan and its potential therapeutic applications in various physiological and pathological contexts. By investigating the properties and functions of epiphycan, we can uncover new insights into its role in tissue biology and its potential as a target for therapeutic interventions. Epiphycan is a proteoglycan primarily expressed in skeletal tissues, such as the growth plate of long bones, articular cartilage, and intervertebral discs. It is an extracellular matrix component that interacts with various growth factors, cytokines, and other matrix proteins, influencing cell behavior and tissue organization. The unique structure of epiphycan, comprising a core protein and attached glycosaminoglycan chains, endows it with diverse regulatory functions. The involvement of epiphycan in tissue development and repair has been highlighted in several studies. It plays a critical role in chondrogenesis, modulating the differentiation and proliferation of chondrocytes. Furthermore, epiphycan has been implicated in the maintenance of articular cartilage integrity and the prevention of osteoarthritis progression. Its ability to interact with growth factors, such as transforming growth factor-beta (TGF- β) and bone morphogenetic

proteins (BMPs), suggests its potential as a modulator of tissue regeneration and repair. This research will delve into the molecular mechanisms underlying epiphygan's functions and its interactions with various signaling pathways. The paper will explore the regulatory effects of epiphygan on cell behavior, matrix remodeling, and tissue architecture. Additionally, it will examine the implications of epiphygan dysregulation in pathological conditions, such as osteoarthritis, and discuss its potential as a therapeutic target for promoting tissue regeneration and repair. The study will also investigate the diagnostic and prognostic value of epiphygan in various diseases and conditions. Understanding the expression patterns and alterations of epiphygan in different tissues and disease states may provide valuable insights into disease progression and aid in the development of personalized treatment strategies. By unraveling the multifaceted roles of epiphygan in tissue biology and its potential therapeutic applications, this research aims to contribute to our understanding of tissue development and repair mechanisms. Furthermore, it highlights the potential of epiphygan as a target for therapeutic interventions and emphasizes the importance of further investigations to harness its full therapeutic potential.