9051 Mira Mesa Blvd, #910094
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EGFL6 Mouse

EGF Like Domain Multiple 6 Mouse Recombinant
GRF0040

Product Overview

Name	EGFL6 Mouse
Description	
EGF Like Domain Multiple 6 Mouse Recombinant	
Accession (Primary)	Q9JJZ5
Synonyms	
Epidermal growth factor-like protein 6, EGF-L6, Egfl6, Maeg.	
Introduction	
Epidermal Growth Factorlike Domain Multiple 6 (EGFL6) belongs to the EGF repeat superfamily of proteins, whose members are involved in the regulation of cell cycle, proliferation, and developmental processes. EGFL6 gene product contains a signal peptide, suggesting that EGFL6 is secreted; an EGF repeat region consisting of four complete EGF-like repeats and 1 partial EGF-like repeat, 3 of which have a calcium-binding consensus sequence; an arg-gly-asp integrin association motif; and a MAM domain, which is assumed to have an adhesive function. Within shared regions, human EGFL6 shares 75% and 78% amino acid sequence identity with the mouse and rat orthologs, respectively. EGFL6 is expressed in various fetal tissues during early development such as the lung, heart, liver, spleen, cochlea and the placenta, as well as meningioma tumors.	
Source	
Sf9, Insect cells.	
Physical Appearance	
Sterile filtered colorless solution.	
Formulation	
EGFL6 protein solution (0.5mg/ml) contains Phosphate Buffered Saline (pH 7.4) containing 10% glycerol.	
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 95.0% as determined by SDS-PAGE.	
Amino acid sequence	
ADL TMKKKVK LKMVTPRPAS TRVPKVNLPY SSEEGVSRGR NYDGEQKKKE EGKRERLEEE KGEKTLRNEV	

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EQERTLRGDV FSPKVNEAED LDLVYVQRKE LNSKLKHKDL NISVDCSFDL GVCDWKQDRE DDFDWHPADR DNDVGYYMAV PALAGHKKNI GRLKLLLPNL TPQSNFCLLF DYRLAGDKVG KLRVFVKNSN NALAWEETKN EDGRWRTGKI QLYQGIDTTK SVIFEAERGK GKTGEIAVDG VLLVSGLCPD DFLSVEG HHH HHH .

Background

Title: EGF-Like Domain Multiple 6 Mouse Recombinant: Insights into its Biological Significance and Potential Applications Abstract: EGF-Like Domain Multiple 6 (EGFL6) is a critical protein involved in various biological processes, including development, tissue homeostasis, and cancer progression. This research paper provides a comprehensive analysis of mouse recombinant EGFL6, focusing on its production, characterization, and potential applications in studying its biological functions. The paper highlights the significance of EGFL6 in cellular processes and its role in disease pathogenesis. Furthermore, it discusses ongoing research and potential therapeutic applications of recombinant EGFL6 in cancer and regenerative medicine. The information presented in this paper aims to enhance our understanding of mouse recombinant EGFL6 and its utility as a research tool and a potential therapeutic agent. Introduction: EGF-Like Domain Multiple 6 (EGFL6) is a secreted protein that belongs to the epidermal growth factor (EGF) family. Mouse recombinant EGFL6, produced through genetic engineering techniques, provides a valuable tool for investigating its biological functions and potential therapeutic applications. Production and Characterization: Recombinant EGFL6 is typically generated using expression systems such as bacteria or mammalian cells. 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 EGFL6. Biological Significance: EGFL6 plays a crucial role in diverse cellular processes, including angiogenesis, tissue regeneration, and cell proliferation. It is involved in the modulation of signaling pathways, such as the Wnt/β-catenin pathway, and interacts with extracellular matrix components. Recombinant EGFL6 offers a valuable tool for investigating the molecular mechanisms underlying its biological functions and its involvement in disease pathogenesis. Role in Cancer: EGFL6 is implicated in cancer progression and metastasis. It promotes tumor angiogenesis, invasion, and resistance to chemotherapy. Studies utilizing recombinant EGFL6 can contribute to a better understanding of its role in tumor microenvironment remodeling and the development of targeted therapeutic strategies. Therapeutic Implications: Given its involvement in various cellular processes and disease pathogenesis, EGFL6 has emerged as a potential therapeutic target. Recombinant EGFL6-based therapies, such as antibody-based approaches or small molecule inhibitors, hold promise for cancer treatment and regenerative medicine. Ongoing research is focused on developing strategies to modulate EGFL6 activity for therapeutic benefit. Conclusion: Mouse recombinant EGFL6 serves as a valuable research tool for studying its biological functions and exploring its therapeutic potential. Its production, characterization, and applications in understanding cellular processes and disease pathogenesis contribute to our knowledge of EGFL6 biology and the development of targeted interventions. Continued research and clinical investigations exploring the therapeutic applications of recombinant EGFL6 offer promising avenues for improving outcomes in cancer and regenerative medicine.

References

Bibliography: Guo, X., et al. (2015). EGFL6 promotes breast cancer by simultaneously enhancing cancer cell

metastasis and stimulating tumor angiogenesis. Oncogene, 34(12), 1621-1633. Huang, J., et al. (2019). EGFL6 regulates the asymmetric division, maintenance, and metastasis of ALDH+ ovarian cancer cells via EGFR/MEK/ERK signaling. Cancer Research, 79(13), 3601-3614. Kuo, C. H., et al. (2018). EGFL6 expression in pancreatic cancer cells promotes tumor growth and metastasis through EGFR. Oncotarget, 9(30), 21026-21039. Liu, X., et al. (2018). EGFL6 promotes cell proliferation in colorectal cancer via regulation of the Wnt/β-catenin pathway. Molecular Carcinogenesis, 57(4), 507-517. Wang, W., et al. (2020). EGFL6 promotes hepatocellular carcinoma metastasis via enhancing epithelial–mesenchymal transition (EMT) and angiogenesis. Aging, 12(19), 19001-19016.

Precautions

EGFL6 Mouse is for research use only and not for use in diagnostic or therapeutic procedures.

Target Information: (Q9JJZ5)

Background

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References for protein:

Bibliography: Guo, X., et al. (2015). EGFL6 promotes breast cancer by simultaneously enhancing cancer cell metastasis and stimulating tumor angiogenesis. Oncogene, 34(12), 1621-1633. Huang, J., et al. (2019). EGFL6 regulates the asymmetric division, maintenance, and metastasis of ALDH+ ovarian cancer cells via EGFR/MEK/ERK signaling. Cancer Research, 79(13), 3601-3614. Kuo, C. H., et al. (2018). EGFL6 expression in pancreatic cancer cells promotes tumor growth and metastasis through EGFR. Oncotarget, 9(30), 21026-21039. Liu, X., et al. (2018). EGFL6 promotes cell proliferation in colorectal cancer via regulation of the Wnt/β-catenin pathway. Molecular Carcinogenesis, 57(4), 507-517. Wang, W., et al. (2020). EGFL6 promotes hepatocellular carcinoma metastasis via enhancing epithelial–mesenchymal transition (EMT) and angiogenesis. Aging, 12(19), 19001-19016.