9051 Mira Mesa Blvd, #910094
San Diego, CA 92191
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ANGPTL2 Human

Angiopoietin-like Protein 2 Human Recombinant
CYK0031

Product Overview

Name	ANGPTL2 Human
Description	
Angiopoietin-like Protein 2 Human Recombinant	
Accession (Primary)	Q9UKU9
Synonyms	
Angiopoietin-related protein 2, Angiopoietin-like protein 2, ANGPTL2, ARP2, HARP.	
Introduction	
Angiopoietins belong to the vascular endothelial growth factor family and the only known growth factors largely specific for vascular endothelium. Angiopoietins-1, 2 and 4 partake in the formation of blood vessels. ANGPTL2 displays angiogenic effects. Angiopoietin-like Protein 2 (ANGPTL2) is an anti-diabetic factor. ANGPTL2 induces sprouting in endothelial cells through an autocrine and paracrine action. ANGPTL2 increases insulin sensitivity in adipocytes. In addition, ANGPTL2 is a mediator of chronic adipose tissue inflammation. ANGPTL2 is widely expressed in the heart, small intestine, spleen and stomach. ANGPTL2 is also found in lower levels in the colon, ovary, adrenal gland, skeletal muscle and in prostate.	
Source	
Escherichia Coli.	
Physical Appearance	
Sterile filtered colorless solution.	
Formulation	
ANGPTL2 protein solution (0.5mg/ml) contains 20mM Tris HCL (pH7-8) and 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 85.0% as determined by SDS-PAGE.	
Amino acid sequence	
MGSSHHHHHH SSGLVPRGSH MGQEDGFEGT EEGSPREFIY LNRYKRAGES QDKCTYTFIV PQQRVTGAIC VNSKEPEVLL ENRVHKQELE LLNNELLKQK RQIETLQQLV EVDGGIVSEV KLLRKESRNM NSRVTQLYMQ	

LLHEIIRKRD NALELSQLEN RILNQTADML QLASKYKDLE HKYQHLATLA HNQSEIIAQL EEHCQRVPSA RPVPQPPPAA PPRVYQPPTY NRIINQISTN EIQSDQNLKV LPPPLPTMPT LTSLPSSTDK PSGPWRDCLQ ALEDGHDTSS IYLVKPENTN RLMQVWCDQR HDPGGWTVIQ RRLDGSVNFF RNWETYKQGF GNIDGEYWLG LENIYWLTNQ GNYKLLVTME DWSGRKVFAE YASFRLEPES EYYKLRLGRY HGNAGDSFTW HNGKQFTTLD RDHDVYTGNC AHYQKGGWWY NACAHSNLNG VWYRGGHYRS RYQDGVYWAE FRGGSYSLKK VVMMIRPNPN TFH

Background

Angiopoietin-like Protein 2 Human Recombinant: A Potential Therapeutic Target for Metabolic and Cardiovascular Disorders Abstract: Angiopoietin-like protein 2 (ANGPTL2) has emerged as a crucial regulator in metabolic and cardiovascular disorders. This multifunctional protein is involved in various biological processes, including angiogenesis, adipose tissue function, and inflammation. The availability of human recombinant ANGPTL2 protein has provided researchers with a valuable tool to explore its therapeutic potential. This concise review provides an overview of the role of ANGPTL2 in metabolic and cardiovascular health and discusses the potential of ANGPTL2 human recombinant protein as a therapeutic target. Introduction: Metabolic disorders, such as obesity and type 2 diabetes, are closely associated with cardiovascular diseases and pose significant global health challenges. ANGPTL2, a member of the angiopoietin-like protein family, has gained attention for its involvement in metabolic regulation and cardiovascular homeostasis. Through interactions with various receptors and signaling pathways, ANGPTL2 influences lipid metabolism, insulin sensitivity, inflammation, and vascular integrity. Mechanisms of ANGPTL2 Action: ANGPTL2 acts through binding to integrins, toll-like receptors (TLRs), and other receptors on different cell types, including adipocytes, endothelial cells, and immune cells. By influencing angiogenesis, inflammation, and extracellular matrix remodeling, ANGPTL2 affects adipose tissue function, lipid metabolism, and insulin signaling. Role of ANGPTL2 in Metabolic Regulation: ANGPTL2 plays a critical role in metabolic regulation and the development of metabolic disorders. It promotes adipose tissue inflammation, impairs adipogenesis, and alters adipokine secretion, contributing to metabolic dysfunction. Furthermore, ANGPTL2 modulates lipid metabolism by regulating lipoprotein lipase activity, affecting triglyceride clearance, and promoting hepatic lipid accumulation. ANGPTL2 in Cardiovascular Health and Disease: Increasing evidence suggests that ANGPTL2 is implicated in cardiovascular diseases, including atherosclerosis and heart failure. ANGPTL2 promotes vascular inflammation, endothelial dysfunction, and smooth muscle cell proliferation, which contribute to atherosclerotic plaque progression and vascular remodeling. Additionally, ANGPTL2 influences cardiac remodeling and fibrosis, impacting heart failure development. Therapeutic Potential of ANGPTL2 Human Recombinant Protein: The availability of ANGPTL2 human recombinant protein opens avenues for therapeutic interventions targeting metabolic and cardiovascular disorders. Preclinical studies employing ANGPTL2 blockade or supplementation have shown promising results in improving metabolic parameters, reducing atherosclerosis, and preserving cardiac function. However, further research is needed to optimize the clinical application of ANGPTL2 human recombinant protein, including dosage, timing, and delivery methods. Conclusion: ANGPTL2 holds promise as a therapeutic target for metabolic and cardiovascular disorders. Its involvement in key biological processes makes it an attractive candidate for interventions aiming to improve metabolic health and prevent cardiovascular complications.

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The development of ANGPTL2 human recombinant protein provides a valuable tool for investigating its therapeutic potential further.

Precautions

ANGPTL2 Human is for research use only and not for use in diagnostic or therapeutic procedures.

Target Information: (Q9UKU9)

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interventions targeting metabolic and cardiovascular disorders. Preclinical studies employing ANGPTL2 blockade or supplementation have shown promising results in improving metabolic parameters, reducing atherosclerosis, and preserving cardiac function. However, further research is needed to optimize the clinical application of ANGPTL2 human recombinant protein, including dosage, timing, and delivery methods. Conclusion: ANGPTL2 holds promise as a therapeutic target for metabolic and cardiovascular disorders. Its involvement in key biological processes makes it an attractive candidate for interventions aiming to improve metabolic health and prevent cardiovascular complications. The development of ANGPTL2 human recombinant protein provides a valuable tool for investigating its therapeutic potential further.