9051 Mira Mesa Blvd, #910094
San Diego, CA 92191
Tel: 760-390-3989

Visfatin Human

Visfatin Human Recombinant
CYK0622

Product Overview

Name	Visfatin Human
Description	
Visfatin Human Recombinant	
Accession (Primary)	P43490
Synonyms	
PBEF, Pre-B cell colony-enhancing factor, Nicotinamide phosphoribosyltransferase NAmPRTase, Nampt, MGC117256, DKFZP666B131, 1110035O14Rik.	
Introduction	
Excess adiposity is the most important risk in the development of type 2 diabetes mellitus (T2DM). Adipose tissue produces several proteins (adipocytokines) such as leptin, adiponectin, resistin, tumor necrosis factor-a, and IL-6, that modulate sensitivity and appear to play an important role in the pathogenesis, diabetes, dyslipidemia, inflammation, and atherosclerosis. Visfatin, also known as pre-B cell colony-enhancing factor (PBEF), is a cytokine that is highly expressed in visceral fat and was originally isolated as a secreted factor that synergizes with IL-7 and stem cell factors to promote the growth of B cell precursors. Visfatin homologs have been identified in carp, invertebrate mollusks, and bacteria, as well as in vertebrates, including humans and the mouse. It has been postulated to play a role in innate immunity. Visfatin exerts mimetic effects that are dose-dependent and quantitatively similar to stimulating muscle and adipocyte glucose transport, and in inhibiting hepatocyte glucose production. Intravenous injection of recombinant visfatin in mice decreased plasma glucose in a dose-dependent fashion. In keeping with its mimetic effects, visfatin was as effective in reducing hyperglycemia in deficient diabetic mice. Visfatin was also found to be bound to and activate receptor, causing receptor phosphorylation and the activation of downstream signaling molecules. However, visfatin did not compete for binding to the receptor, indicating that the two proteins were recognized by different regions of the receptor. Thus, visfatin might play a role in glucose homeostasis and dysregulation in biosynthesis or signal transduction, and might contribute to the pathogenesis of diabetes.	
Source	
Escherichia Coli.	
Physical Appearance	
Filtered White lyophilized (freeze-dried) powder.	
Formulation	

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Visfatin was lyophilized with no additives.

Stability

Lyophilized Visfatin although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution Visfatin should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

Purity

Greater than 90.0% as determined by SDS-PAGE.

Amino acid sequence

MPPNTSKVYS YFECREKKTE NSKLRKVKYE ETVFYGLQYI LNKYLKGKVV TKEKIQEAKD VYKEHFQDDV FNEKGWNYIL EKYDGHLPIE IKAVPEGFVI PRGNVLFTVE NTDPECYWLT NWIETILVQS WYPITVATNS REQKKILAKY LLETSGNLDG LEYKLHDFGY RGVSSQETAG IGASAHLVNF KGTDTVAGLA LIKKYYGTKD PVPGYSVPAA EHSTITAWGK DHEKDAFEHI VTQFSSVPVS VVSDSYDIYN ACEKIWGEDL RHLIVSRSTQ APLIIRPDSG NPLDTVLKVL EILGKKFPVT ENSKGYKLLP PYLRVIQGDG VDINTLQEIV EGMKQKMWSI ENIAFGSGGG LLQKLTRDLL NCSFKCSYVV TNGLGINVFK DPVADPNKRS KKGRLSLHRT PAGNFVTLEE GKGDLEEYGQ DLLHTVFKNG KVTKSYSFDE IRKNAQLNIE LEAAHH.

Biological Activity

The activity is determined by its ability to induce IL-6, IL-1 beta and TNF alpha production from human PBMCs at 100ng/ml.

Solubility

Centrifuge vial before opening. When reconstituting the product, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution. It is recommended to reconstitute the lyophilized product with 20 mM HCl at a concentration of 0.1 mg/mL, which can be further diluted into other aqueous solutions. Wait several minutes for full reconstitution and solubility.

Background

About Visfatin Human Visfatin is a cytokine expressed in visceral fat that was originally isolated as a secreted element that synergized with stem cell factors and IL-7. One of its main functions is to enhance the development of B cell precursors. The cytokine is also known as the “Pre-B Cell Colony-Enhancing Factor (PBEF).” It has been identified in vertebrates, including mice and humans, and it’s being studied due to its link to inflammatory conditions, beta cell function, and cardiovascular disease. What’s the Function of Visfatin Human Recombinant? Visfatin human recombinant is produced in E. Coli. It’s a single, non-glycosylated, polypeptide chain that contains 466 amino acids, it’s purified by FLAG-affinity chromatography, and it contains a total molecular mass of 52.6 kDa. What Are the Main Applications of Visfatin Human Recombinant? The cytokine is being researched because of its involvement in glucose homeostasis, dysregulation in biosynthesis and signal transduction, and the pathogenesis of diabetes. Visfatin human recombinant is tailored exclusively for laboratory research, ensuring experts can get further answers regarding the cytokine’s involvement in different processes, including pathogenesis, diabetes, inflammation, dyslipidemia, and atherosclerosis. Findings can also help during the identification of high-risk people for cardiovascular disease and

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diabetes.

Precautions

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

Target Information: (P43490)

Background

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