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

# Visfatin Human, His

*Visfatin Recombinant Human, His Tag*
*CYK0623*

## Product Overview

| | |
|---|---|
| Name | Visfatin Human, His |
| **Description** | |
| Visfatin Recombinant Human, His Tag | |
| 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 insulin resistance and type 2 diabetes mellitus (T2DM). Adipose tissue produces several proteins (adipocytokines) such as leptin, adiponectin, resistin, tumor necrosis factor-?, and IL-6, that modulate insulin sensitivity and appear to play an important role in the pathogenesis of insulin resistance, diabetes, dyslipidemia, inflammation, and atherosclerosis. However, the mechanisms by which fat tissue induces insulin resistance and the role of adipocytokines in the pathogenesis of T2DM have not been well established. 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 insulin-mimetic effects that are dose-dependent and quantitatively similar to those of insulin in 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 insulin-mimetic effects, visfatin was as effective as insulin in reducing hyperglycemia in insulin-deficient diabetic mice. Visfatin was also found to be bound to and activate insulin receptor, causing receptor phosphorylation and the activation of downstream signaling molecules. However, visfatin and insulin did not compete for binding to the insulin 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. | |

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**Physical Appearance**

Sterile Filtered solution at a concentration of 1mg/ml.

**Formulation**

Visfatin His tag protein contains 20mM Tris pH-8, 0.1mM DTT & 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. Please avoid freeze thaw cycles.

**Purity**

Greater than 95.0% as determined by(a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.

**Amino acid sequence**

MGSSHHHHHH SSGLVPRGSH MNPAAEAEFN ILLATDSYKV THYKQYPPNT SKVYSYFECR EKKTENSKLR KVKYEETVFY GLQYILNKYL KGKVVTKEKI QEAKDVYKEH FQDDVFNEKG WNYILEKYDG HLPIEIKAVP EGFVIPRGNV LFTVENTDPE CYWLTNWIET ILVQSWYPIT VATNSREQKK ILAKYLLETS GNLDGLEYKL HDFGYRGVSS QETAGIGASA HLVNFKGTDT VAGLALIKKY YGTKDPVPGY SVPAAEHSTI TAWGKDHEKD AFEHIVTQFS SVPVSVVSDS YDIYNACEKI WGEDLRHLIV SRSTQAPLII RPDSGNPLDT VLKVLEILGK KFPVTENSKG YKLLPPYLRV IQGDGVDINT LQEIVEGMKQ KMWSIENIAF GSGGGLLQKL TRDLLNCSFK CSYVVTNGLG INVFKDPVAD PNKRSKKGRL SLHRTPAGNF VTLEEGKGDL EEYGQDLLHT VFKNGKVTKS YSFDEIRKNA QLNIELEAAH H.

**Precautions**

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

## Target Information: ( P43490 )