# Visfatin Human E. coli

## Product Data Sheet

**Type:** Recombinant
**Source:** E. coli
**Species:** Human
**Other names:** Pre-B cell colony-enhancing factor, PBEF, Nicotinamide phosphoribosyltransferase, NAmPRTase, EC=2.4.2.12, Pre-B-cell colony-enhancing factor 1, PBEF1, NAMPT

**Cat. No.:**
RD172098100 (0.1 mg)

## Description

Total 348 AA. N-terminal Flag (11 aa) highlighted, Mw: 39.6 kDa (calculated).

## Introduction to the Molecule

Visfatin is a cytokine that is highly expressed in visceral fat. It 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 ,bacteria and vertebrates, including humans and mice. It has been postulated to play a role in innate immunity. Visfatin exerts insulin-mimetic effects that are dose-dependent. Such effects are quantitatively similar to those of insulin in stimulating muscle or adipocyte glucose transport and in hampering hepatocyte glucose production. Intravenous injection of recombinant visfatin in mice decreased plasma glucose as the dose increased. Visfatin is 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 do not compete for binding to the insulin receptor, indicating that the two proteins were recognized by different regions of the receptor. Thus, visfatin might be related to glucose homeostasis and dysregulation in biosynthesis, signal transduction. It also might contribute to the pathogenesis of diabetes.

## Research topic

Energy metabolism and body weight regulation

## Amino Acid Sequence

**MDYKDDDDKA S**PPNTSKVYS 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 VDINTLQE

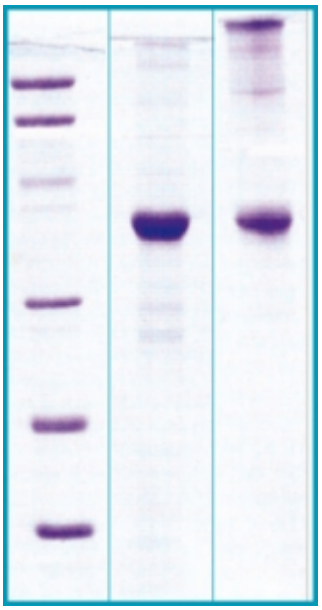
## Source

E. coli

## Purity

>95%

## SDS-PAGE gel



12% SDS-PAGE separation of Human Visfatin
1. M.W. marker - 14, 21, 31, 45, 66, 97 kDa
2. reduced and heated sample, 5µg/lane
3. non-reduced and non-heated sample, 5µg/lane

## Endotoxin

< 1.0 EU/ug

## Formulation

Filtered (0,4 µm) and lyophilized in 0.5 mg/mL in 20mM TRIS, 20mM NaCl, pH 7.5

## Reconstitution

Add 20mM TRIS, 20mM NaCl, pH 7.5 to prepare a working stock solution of approximately 0.5 mg/mL and let the lyophilized pellet dissolve completely. Product is not sterile! Please filter the product by an appropriate sterile filter before using it in the cell culture.

## Shipping

At ambient temperature. Upon receipt, store the product at the temperature recommended below.

## Storage, Stability/Shelf Life

Store lyophilized protein at -20°C. Lyophilized protein remains stable until the expiry date when stored at -20°C. Aliquot reconstituted protein to avoid repeated freezing/thawing cycles and store at -80°C for long term storage. Reconstituted protein can be stored at 4°C for a limited period of time; it does not show any change after one week at 4°C.

## Quality Control Test

BCA to determine quantity of the protein.
SDS PAGE to determine purity of the protein.
LAL to determine quantity of endotoxin.

## Applications

Western blotting

## Note

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