

Recombinant Human Visfatin

Catalog # PBG10478

Specification

Recombinant Human Visfatin - Product Information

Recombinant Human Visfatin - Additional Information

Description

Visfatin is a 55 kDa protein produced and secreted primarily by white adipose tissue. Recently, Visfatin was isolated from visceral fat deposits and shown to possess insulin-mimetic activity. Like insulin, Visfatin exerts hypoglycemic effects by interacting with the insulin receptor. The binding affinity of Visfatin for the insulin receptor is similar to that of insulin, but it does not compete with insulin, suggesting that the two proteins interact with different receptor sites. The circulating levels of Visfatin are much lower than those of insulin and are not affected by feeding, implying that the hypoglycemic effect of Visfatin may not be of physiological importance. The plasma Visfatin levels, like those of Leptin, correlate positively with the percent of body fat and increase during the development of obesity. Another similarity between Visfatin and Leptin is that their amino acid sequence is highly conserved across different mammalian species and shows no homology to any known protein. Receptors for both Leptin (Ob-R) and Visfatin (i.e. the insulin receptor) are expressed by neurons within the arcuate nucleus of the hypothalamus, a brain area that plays a pivotal role in the regulation of energy metabolism. Although the metabolic function of Visfatin is still unknown, it appears that this newly identified adipocytokine might play an important role, similar to that of Leptin, in the regulation of body weight, i.e. as an afferent signal reflecting excess body fat. Recombinant human Visfatin is a 52.6 kDa protein containing 466 amino acid residues (isoform 1).

BiologicalActivity

The ED₅₀was determined by the dose-dependant proliferation of the RPMI 8226 cells. The expected ED₅₀for this effect is 15.0-20.0 ng/ml.

Authenticity

Verified by N-terminal and Mass Spectrometry analyses (when applicable).

Endotoxin

Endotoxin level is $<0.1 \text{ ng}/\mu\text{g}$ of protein ($<1\text{EU}/\mu\text{g}$).

Protein Content

Verified by UV Spectroscopy and/or SDS-PAGE gel.

Storage

-20°C

Precautions

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



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Recombinant Human Visfatin - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- <u>Immunohistochemistry</u>
- <u>Immunofluorescence</u>
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

Recombinant Human Visfatin - Images