

## Product Information

### Anti-Visfatin (C- terminal)

produced in rabbit, affinity isolated antibody

Product Number **V9139**

#### Product Description

Anti-Visfatin (C- terminal) is produced in rabbit using as immunogen a synthetic peptide corresponding to a sequence at the C-terminal of human visfatin (GenelD: 10135), conjugated to KLH. This sequence is identical in mouse and rat visfatin. The antibody is affinity-purified using the immunizing peptide immobilized on agarose.

Anti-Visfatin (C- terminal) recognizes human and rat visfatin. Applications include the detection of visfatin by immunoblotting (~50 kDa). Staining of the visfatin band by immunoblotting is specifically inhibited with the immunizing peptide.

Visfatin (also known as pre-B colony enhancing factor 1, PBEF1, nicotinamide phosphoribosyl transferase, NAMPT), is a highly conserved protein involved in the regulation of cellular metabolism and energy homeostasis. Visfatin was isolated as an adipocytokine, expressed by fat cells that exert a variety of insulin mimetic effects, including enhancing glucose uptake and increasing triglyceride synthesis.<sup>1</sup>

Visfatin has been shown to activate its target cells by binding to the insulin receptor at a site distinct from insulin, and its expression level in plasma increases during the development of obesity. Visfatin functions as a nicotinamide phosphoribosyl transferase (NAMPT), where it can regulate cellular levels of NAD and energy homeostasis.<sup>1, 2</sup>

Visfatin can induce the cellular expression of inflammatory cytokines such as TNF- $\alpha$ , IL-1 $\beta$ , IL-7, and IL-6.<sup>3, 4</sup> Visfatin has been implicated in the development of obesity-associated insulin resistance, diabetes mellitus and different human diseases that share an inflammatory basis such as rheumatoid arthritis, lung injury and tumorigenesis.<sup>5, 6</sup> Visfatin is expressed in large amounts in the bone marrow, liver tissue, and muscle and is also present in heart placenta, lung, and kidney tissues.<sup>6</sup>

#### Reagent

Supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide as a preservative.

Antibody concentration: ~1.5 mg/mL

#### Precautions and Disclaimer

For R&D use only. Not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

#### Storage/Stability

For continuous use, store at 2–8 °C for up to one month. For extended storage, freeze in working aliquots. Repeated freezing and thawing, or storage in “frost-free” freezers, is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilutions should be discarded if not used within 12 hours.

#### Product Profile

**Immunoblotting:** a working concentration of 1-2  $\mu$ g/mL is recommended using a A549 cell lysate and 2-4  $\mu$ g/mL using a rat lung extract (S1 fraction).

**Note:** In order to obtain best results in various techniques and preparations, it is recommended to determine optimal working dilutions by titration.

#### References

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3. Samal, B. et al., *Mol. Cell. Biol.*, **14**, 1431-1437 (1994).
4. Tilg, H., and Moschen, A.R., *Nature Rev. Immunol.*, **6**, 772-783 (2006)
5. Kim, S.R. et al., *Biochem. Biophys. Res. Commun.*, **357**, 150-156 (2007).
6. Luk, T. et al., *J. Leukoc. Biol.*, **83**, 804-816 (2008).

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