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# PBEF1 Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1157a

## Product Information

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| **Application** | WB, E |
| **Primary Accession** | P43490 |
| **Reactivity** | Human |
| **Host** | Mouse |
| **Clonality** | Monoclonal |
| **Clone Names** | 1D3A12 |
| **Isotype** | IgG1 |
| **Calculated MW** | 55521 |
| **Description** | PBEF1: nicotinamide phosphoribosyltransferase. This gene encodes a protein that catalyzes the condensation of nicotinamide with 5-phosphoribosyl-1-pyrophosphate to yield nicotinamide mononucleotide, one step in the biosynthesis of nicotinamide adenine dinucleotide. The protein is an adipokine that is localized to the bloodstream and has various functions, including the promotion of vascular smooth muscle cell maturation and inhibition of neutrophil apoptosis. It also activates insulin receptor and has insulin-mimetic effects, lowering blood glucose and improving insulin sensitivity. The protein is highly expressed in visceral fat and serum levels of the protein correlate with obesity. |
| **Immunogen** | Purified recombinant fragment of PBEF1 (aa338-479) expressed in E. Coli. |
| **Formulation** | Ascitic fluid containing 0.03% sodium azide. |

## Additional Information

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| **Gene ID** | 10135 |
| **Other Names** | Nicotinamide phosphoribosyltransferase, NAmPRTase, Nampt, 2.4.2.12, Pre-B-cell colony-enhancing factor 1, Pre-B cell-enhancing factor, Visfatin, NAMPT, PBEF, PBEF1 |
| **Dilution** | WB~~1/500 - 1/2000 E~~N/A |
| **Storage** | Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles. |
| **Precautions** | PBEF1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures. |

## Protein Information

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| **Name** | NAMPT |
| **Synonyms** | PBEF, PBEF1 |
| **Function** | Catalyzes the condensation of nicotinamide with 5-phosphoribosyl-1-pyrophosphate to yield nicotinamide mononucleotide, an intermediate in the biosynthesis of NAD. It is the rate limiting component in the mammalian NAD biosynthesis pathway. The secreted form behaves both as a cytokine with immunomodulating properties and an adipokine with anti-diabetic properties, it has no enzymatic activity, partly because of lack of activation by ATP, which has a low level in extracellular space and plasma. Plays a role in the modulation of circadian clock function. NAMPT-dependent oscillatory production of NAD regulates oscillation of clock target gene expression by releasing the core clock component: CLOCK-BMAL1 heterodimer from NAD-dependent SIRT1- mediated suppression (By similarity). |
| **Cellular Location** | Nucleus. Cytoplasm {ECO:0000250\|UniProtKB:Q99KQ4}. Secreted Note=Under non-inflammatory conditions, visfatin predominantly exhibits a granular pattern within the nucleus. Secreted by endothelial cells upon IL-1beta stimulation. Abundantly secreted in milk, reaching 100- fold higher concentrations compared to maternal serum |
| **Tissue Location** | Expressed in large amounts in bone marrow, liver tissue, and muscle. Also present in heart, placenta, lung, and kidney tissues |

## References

1. Mol Cell Biol. 1994 Feb;14(2):1431-7. 2. Eur J Immunol. 2002 Nov;32(11):3225-34.

## Images

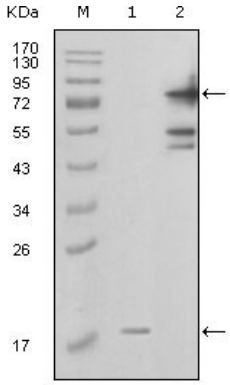


Figure 1: Western blot analysis using PBEF1 mouse mAb against truncated PBEF1-His recombinant protein (1) and full-length GFP-PBEF1(aa1-491) transfected COS7 cell lysate (2).