

**PBEF/NAMPT (D1K6D) Rabbit mAb**

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<b>Applications:</b> W, IP, IHC-P	<b>Reactivity:</b> H	<b>Sensitivity:</b> Endogenous	<b>MW (kDa):</b> 52	<b>Source/Isotype:</b> Rabbit IgG	<b>UniProt ID:</b> #P43490	<b>Entrez-Gene Id:</b> 10135
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**Product Usage Information****Application**

Western Blotting  
Immunoprecipitation  
Immunohistochemistry (Paraffin)

**Dilution**

1:1000  
1:200  
1:1600 - 1:6400

**Storage**

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

**Specificity/Sensitivity**

PBEF/NAMPT (D1K6D) Rabbit mAb recognizes endogenous levels of total PBEF/NAMPT protein.

**Source / Purification**

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Gly122 of human PBEF/NAMPT protein.

**Background**

Nicotinamide phosphoribosyltransferase (NAMPT; also known as Pre-B cell-enhancing factor PBEF) catalyzes the synthesis of nicotinamide mononucleotide (NMN) from nicotinamide and 5-phosphoribosylpyrophosphate (PRPP), the rate-limiting step in the NAD biosynthesis pathway starting from nicotinamide (1,2). NAD biosynthesis mediated by NAMPT plays a critical role in glucose-stimulated insulin secretion in pancreatic beta cells (3). Both NAMPT inhibitors and activators have been sought for clinical applications (4,5). NAMPT has intra- and extracellular forms (iNAMPT and eNAMPT), and deacetylation of iNAMPT by SIRT1 promotes eNAMPT secretion through a nonclassical secretory pathway (3,6). eNAMPT, independent of its enzymatic activity, can induce epithelial-to-mesenchymal transition in mammary epithelial cells and promote monocyte differentiation into a tumor-supporting M2 macrophage (7,8).

**Background References**

1. Imai, S. (2009) *Curr Pharm Des* 15, 20-8.
2. Samal, B. et al. (1994) *Mol Cell Biol* 14, 1431-7.
3. Revollo, J.R. et al. (2007) *Cell Metab* 6, 363-75.
4. Montecucco, F. et al. (2013) *Curr Drug Targets* 14, 637-43.
5. Wang, G. et al. (2014) *Cell* 158, 1324-34.
6. Yoon, M.J. et al. (2015) *Cell Metab* 21, 706-17.
7. Soncini, D. et al. (2014) *J Biol Chem* 289, 34189-204.
8. Audrito, V. et al. (2015) *Blood* 125, 111-23.

**Species Reactivity**

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

**Western Blot Buffer**

**IMPORTANT:** For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween@ 20 at 4°C with gentle shaking, overnight.

**Applications Key**

**W:** Western Blotting **IP:** Immunoprecipitation **IHC-P:** Immunohistochemistry (Paraffin)

**Cross-Reactivity Key**

**H:** Human

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