

NAMPT Protein, Human, Recombinant (His & GST)

General Information

Synonyms:	VISFATIN;PBEF;PBEF1;1110035014Rik;VF;nicotinamide phosphoribosyltransferase
Protein Construction:	A DNA sequence encoding the human NAMPT (P43490) (Met 1-His 491) was fused with a N-terminal polyhistidine tag followed by a GST tag. Predicted N terminal: Met
Species:	Human
Expression Host:	Baculovirus Insect Cells
Accession:	P43490
Molecular Weight:	83.3 kDa (predicted); 75 kDa (reducing conditions)

QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	≥ 90 % as determined by SDS-PAGE. ≥ 95 % as determined by SEC-HPLC.
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing 20 mM Tris, 500 mM NaCl, pH 8.0, 20% gly, 0.3 mM DTT. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:
A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:
It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:
In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

Nicotinamide phosphoribosyltransferase (NAMPT), also known as pre-B-cell colony-enhancing factor 1 (PBEF1) or visfatin, is an enzyme belonging to the family of glycosyltransferases, to be specific, the pentosyltransferases. This enzyme participates in nicotinate and nicotinamide metabolism. This enzyme catalyzes the condensation of nicotinamide with 5- phosphoribosyl-1- pyrophosphate to yield nicotinamide mononucleotide, one step in the biosynthesis of nicotinamide adenine dinucleotide. NAMPT is also considered as an essential enzyme mediating

granulocyte colony-stimulating factor (G-CSF)-triggered granulopoiesis in healthy individuals and individuals with severe congenital neutropenia. Intracellular NAMPT and NAD⁺ amounts in myeloid cells, as well as plasma NAMPT and NAD⁺ levels, were increased by G-CSF treatment of both healthy volunteers and individuals with congenital neutropenia.

Reference

Skokowa J, et al. (2009) NAMPT is essential for the G-CSF-induced myeloid differentiation via a NAD⁺-sirtuin-1-dependent pathway. *Nat Med.* 15(2): 151-8.

Samal B, et al. (1994) Cloning and characterization of the cDNA encoding a novel human pre-B-cell colony-enhancing factor. *Mol Cell Biol.* 14 (2): 1431-7.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

Tel: 781-999-4286 E_mail: info@targetmol.com Address: 34 Washington Street, Wellesley Hills, MA 02481