Human NPM1 / Nucleophosmin (aa 2-294) Protein (His Tag)

Catalog Number: **10053-H07E1**

Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

B23; NPM

Protein Construction:

A DNA sequence encoding the human NPM1 isoform 1 (P06748-1) (Glu2-Leu294) was expressed with a polyhistide tag at the N-terminus.

Source: Human

Expression Host: E. coli

QC Testing

Purity: > 85 % as determined by SDS-PAGE

Endotoxin:

Please contact us for more information

Stability:

Samples are stable for up to twelve months from date of receipt at -70 ℃

Predicted N terminal: Met

Molecular Mass:

The recombinant human NPM1 consists of 304 amino acids and has a calculated molecular mass of 34 kDa.

Formulation:

Lyophilized from sterile 30 mM Hepes, 2 mM EDTA, 0.001 % Tween, 15 % glycerol, pH 7.0.

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

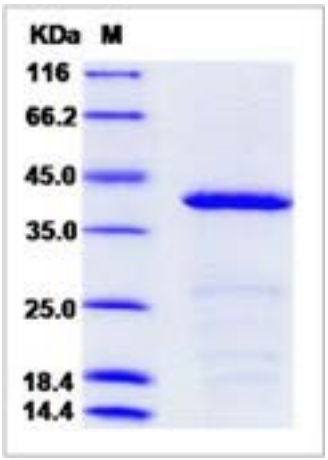
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Nucleophosmin 1 (NPM1), also known as nucleolar phosphoprotein B23 or numatrin, is a member of the nucleoplasmin family. Nucleophosmin (NPM) is a nucleolar phosphoprotein that plays multiple roles in ribosome assembly and transport, cytoplasmic-nuclear trafficking, centrosome duplication and regulation of p53. The NPM1 gene is frequently involved in chromosomal translocation, mutation and deletion. Mutations of the NPM1 gene leading to the expression of a cytoplasmic mutant protein, NPMc+, are the most frequent genetic abnormalities found in acute myeloid leukemias. Acute myeloid leukemias (AML) with mutated NPM1 have distinct characteristics, including a significant association with a normal karyotype, involvement of different hematopoietic lineages, a specific gene-expression profile and clinically, a better response to induction therapy and a favorable prognosis. In addition, NPM1 is a crucial gene to consider in the context of the genetics and biology of cancer. NPM1 is frequently overexpressed, mutated, rearranged and deleted in human cancer. Traditionally regarded as a tumour marker and a putative proto-oncogene, it has now also been attributed with tumour-suppressor functions.

References

1.Chen W, *et al.* (2006) Nucleophosmin gene mutations in acute myeloid leukemia. Arch Pathol Lab Med. 130(11): 1687-92. 2.Naoe T, *et al.* (2006) Nucleophosmin: a versatile molecule associated with hematological malignancies. Cancer Sci. 97(10): 963-9. 3.Grisendi S, *et al.* (2006) Nucleophosmin and cancer. Nat Rev Cancer. 6(7): 493-505.