

Catalog # **Aliquot Size**

N50-30H-20 20 ua N50-30H-50 50 µg

NPM1 Protein

Full-length human recombinant protein expressed in E.coli cells

Catalog # N50-30H

Lot # Z1238-2

Product Description

Full-length recombinant human NPM1 protein was expressed in E.coli cells using an N-terminal His tag. The gene accession number is NM_002520.

Gene Aliases

Nucleophosmin; B23; MGC104254; NPM

Formulation

Recombinant protein stored in 50mM sodium phosphate, pH 7.0, 300mM NaCl, 150mM imidazole, 0.1mM PMSF, 0.25mM DTT, 25% glycerol.

Storage and Stability

Store product at -70°C. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles.

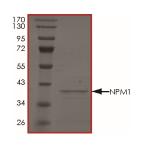
Scientific Background

NPM1 or nucleophosmin (nucleolar phosphoprotein B23, numatrin) is a ubiquitously expressed nucleolar protein that shuttles between the nucleus and cytoplasm which is implicated in multiple functions, including ribosomal protein assembly and transport, control of centrosome duplication, and regulation of the tumor suppressor ARF NPM1 mutations that relocalize NPM1 from the nucleus into the cytoplasm are associated with development of acute myeloid leukemia (AML) (1). NPM1 is a target of CDK2/cyclin E in the initiation of centrosome duplication (2). NPM1 is involved in several processes including regulation of the ARF/p53 pathway. NPM1-ALK acts as a tumor suppressor by reciprocally inhibiting NPM1-ALK expression.

References

- 1. Garzon, R.et.al: Distinctive microRNA signature of acute myeloid leukemia bearing cytoplasmic mutated nucleophosmin. Proc. Nat. Acad. Sci. 105: 3945-3950, 2008.
- Okuda, M..et.al: Nucleophosmin/B23 is a target of CDK2/cyclin E in centrosome duplication. Cell 103: 127-140, 2000.

Purity



The purity of NPM1 was determined to be >80% by densitometry. Approx. MW 40kDa.

NPM1 Protein

Full-length human recombinant protein expressed in E.coli cells

Catalog # N50-30H Lot # Z1238-2 Purity Concentration $0.1 \mu g/\mu l$ 1yr at -70°C from date of shipment

Stability Storage & Shipping

Store product at -70°C. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, repeated handling and

freeze/thaw cycles. Product shipped on dry ice.

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