Human NME1 / NDKA Protein (His Tag)

Catalog Number: **11615-H07E**

General Information

Gene Name Synonym:

AWD; GAAD; NB; NBS; NDKA; NDPK-A; NDPKA; NM23; NM23-H1

Protein Construction:

A DNA sequence encoding the human NME1 isoform b (NP_000260.1) (Ala 2-Glu 152) was expressed, with a polyhistide tag at the N-terminus.

Source: Human

Expression Host: E. coli

QC Testing

Purity: > 98 % as determined by SDS-PAGE

Bio Activity:

Kinase activity untested

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 NME1 consisting of 158 amino acids and has a calculated molecular mass of 18 kDa. It migrates as an approximately 21 kDa band in SDS-PAGE under reducing conditions.

Formulation:

Supplied as sterile PBS, pH 7.4

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:

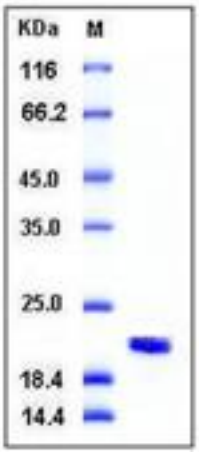
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

NME1, also known as Nucleoside Diphosphate Kinase A (NDK-A), or NM23-H1, belongs to the NDK family. NM23-H1 is known to have a metastasis suppressive activity in many tumor cells. Recent studies have shown that the interacting proteins with NM23-H1 which mediate the cell proliferation, may act as modulators of the metastasis suppressor activity. The interacting proteins with NM23-H1 can be classified into 3 groups. The first group of proteins can be classified as upstream kinases of NM23-H1 such as CKI and Aurora-A/STK15. The second group of proteins acts as downstream effectors for the regulation of specific gene transcriptions, GTP-binding protein functions, and signal transduction in Erk signal cascade. The third group of proteins can be classified as bi-directionally influencing binding partners of NM23-H1. As a result, the interactions with NM23-H1 and binding partners have implications in the biochemical characterization involved in metastasis and tumorigenesis. NDKA is increased in human postmortem cerebrospinal fluid (CSF), a model of global brain insult, suggesting that measurement in CSF and, more importantly, in plasma may be useful as a biomarker of stroke. Additionally, NM23-H1 significantly reduces metastasis without effects on primary tumor size and was the first discovered metastasis suppressor gene.

References

1.Allard L, *et al.* (2005) PARK7 and nucleoside diphosphate kinase A as plasma markers for the early diagnosis of stroke. Clin Chem. 51(11): 2043-51. 2.Steeg PS, *et al.* (2008) Clinical-translational approaches to the Nm23-H1 metastasis suppressor. Clin Cancer Res. 14(16): 5006-12. 3.Kim HD, *et al.* (2009) Regulators affecting the metastasis suppressor activity of Nm23-H1. Mol Cell Biochem. 329(1-2): 167-73.