

AR09972PU-L

E. coli nanA (1-297, His-tag) - Purified

Alternate names:

N-acetylneuraminate lyase, N-acetylneuraminate pyruvate-lyase, N-acetylneuraminic acid aldolase, NALase, Sialate lyase, Sialic acid aldolase, Sialic acid lyase, npl

Quantity:

0.5 mg

Concentration:

1.0 mg/ml (determined by Bradford assay)

Background:

NanA, also known as N-acetylneuraminate lyase, belongs to the family of lyases, specifically the oxo-acid-lyases, which cleave carbon-carbon bonds. NanA catalyzes the cleavage of N-acetylneuraminic acid (sialic acid) to form pyruvate and N-acetyl-D-mannosamine. This protein was inhibited by reduction with NaBH₄ in the presence of the substrate, indicating that it belongs to the Schiff-base-forming Class I aldolases. NanA was strongly inhibited by Cu²⁺ ions, p-chloromercuribenzoate and N-bromosuccinimide, and also inhibited competitively by the reaction product, pyruvate, and its structurally related compounds, dihydroxyacetone and DL-glyceraldehyde.

Uniprot ID:

[P0A6L4](#)

NCBI:

[AP_003767](#)

GeneID:

[947742](#)

Species:

E. coli

Source:

E. coli

Format:

State: Liquid purified protein

Purity: >95%

Buffer System: 20mM Tris-HCl buffer (pH 8.0) containing 20% glycerol

Description:

Recombinant E.coli nanA protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography.

AA Sequence:

MGSSHHHHHH SSGLVPRGSH MATNLRGVMA ALLTPFDQQQ ALDKASLRRL VQFNIQQGID
GLYVGGSTGE AFVQSLSERE QVLEIVAEAA KGKIKLIAHV GCVSTAESQQ LAASAKRYGF
DAVSAVTPFY YPFSFEEHCD HYRAIIDSAD GLPMVVYNIP ALSGVKLTLD QINTLVTLPG
VGALKQTSKD LYQMEQIRRE HPDLVLYNGY DEIFASGLLA GADGGIGSTY NIMGWRYQGI
VKALKEGDIQ TAQKLQTECN KVIDLLIKTG VFRGLKTVLH YMDVVSVPIC RKPFGPVDEK
YLPKALAAQ QLMQERG

Molecular weight: 34.7 kDa (317aa) confirmed by MALDI-TOF

Storage:

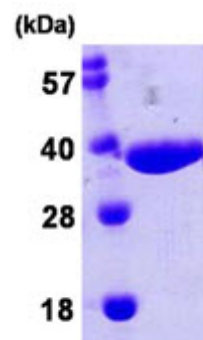
Store undiluted at 2-8°C for up to two weeks or (in aliquots) at -20°C or -70°C for longer.

Avoid repeated freezing and thawing.

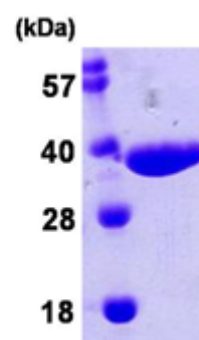
Shelf life: one year from despatch.

Pictures:

Recombinant E.coli nanA, 1-297aa, His-tagged



15% SDS-PAGE (3ug)



15% SDS-PAGE (3ug)