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AR09972PU-N 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: 0.1 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

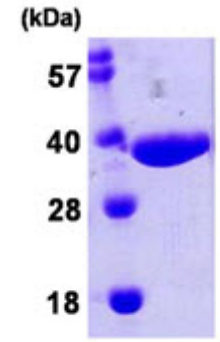
Source: E. coli

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 QVLEIVAEEA KGKIKLIAHV GCVSTAESQQ LAASAKRYGF DAVSAVTPFY YPFSFEEHCD HYRAIIDSAD GLPMVVYNIP ALSGVKLTLD QINTLVTLPG VGALKQTSGD LYQMEQIRRE HPDLVLYNGY DEIFASGLLA GADGGIGSTY NIMGWRYQGI VKALKEGDIQ TAQKLQTECN KVIDLLIKTG VFRGLKTVLH YMDVVSVPLC RKPFGPVDEK YLPELKALAQ QLMQERG
Molecular weight: 34.7 kDa (317aa) confirmed by MALDI-TOF

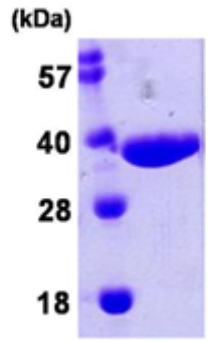
Storage: Store undiluted at 2-8°C for up to two weeks or (in aliquots) at -20°C or -70°C for longer.
Avoid repeated freezing and thawing.
Shelf life: one year from despatch.

Pictures:



15% SDS-PAGE (3ug)

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



15% SDS-PAGE (3ug)