

# Product information

**nanA, 1-297aa**

***E.coli*, His-tagged, Recombinant, *E.coli***

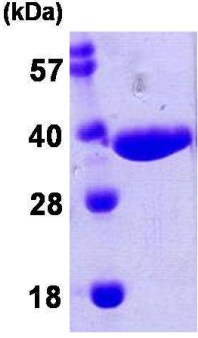
**Cat. No. IBATGP1032**

**Full name:** N-acetylneuraminase lyase

**NCBI Accession No.:** NP\_417692

**Synonyms:** npl

**Description:** NanA, also known as N-acetylneuraminase 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 NaBH<sub>4</sub> in the presence of the substrate, indicating that it belongs to the Schiff-base-forming Class I aldolases. NanA was strongly inhibited by Cu<sup>2+</sup> ions, p-chloromercuribenzoate and N-bromosuccinimide, and also inhibited competitively by the reaction product, pyruvate, and its structurally related compounds, dihydroxyacetone and DL-glyceraldehyde. Recombinant *E.coli* nanA protein, fused to His-tag at N-terminus, was expressed in *E.coli* and purified by using conventional chromatography.

<p><b>Form:</b> Liquid. 20mM Tris-HCl buffer (pH8.0) containing 20% glycerol</p> <p><b>Molecular Weight:</b> 34.7 kDa (317aa) confirmed by MALDI-TOF</p> <p><b>Purity:</b> &gt; 95% by SDS - PAGE</p> <p><b>Concentration:</b> 1 mg/ml (determined by Bradford assay)</p>	 <p>(kDa)</p> <p>57</p> <p>40</p> <p>28</p> <p>18</p> <p>15% SDS-PAGE (3ug)</p>
<p><b>Sequences of amino acids:</b></p> <p>MGSSHHHHH SSGLVPRGSH MATNLRGVMA ALLTPFDQQQ ALDKASLRRL VQFNIQQGID GLYVGGSTGE AFVQSLSERE QVLEIVAEEA          KGKIKLIAHV GCVSTAESQQ LAASAKRYGF DAVSAVTPFY YPFSFEEHCD HYRAIIDSAD GLPMVVYNIP ALSGVKLTLD QINTLVTLPG          VGALKQTSQD LYQMEQIRRE HPDLVLYNGY DEIFASGLLA GADGGIGSTY NIMGWRYQGI VKALKEGDIQ TAQKLQTECN KVIDLLIKTG          VFRGLKTVLH YMDVVSVPLC RKPFGPVDEK YLPELKALAQ QLMQERG</p>	

## General references:

Aisaka K., et al. (1991) *Biochem. J.* 276:541-546

Izard T., et al. (1994) *Structure* 2:361-369

**Storage:** Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.

**For research use only. This product is not intended or approved for human, diagnostics or veterinary use.**