
Product Data Sheet

Product Name: NANS Human
 Cat. No.: GP21974
 Batch No.: 1

Product Data

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped with Ice Packs.
Synonyms	Sialic acid synthase; N-acetylneuraminase; N-acetylneuraminase-9-phosphate synthase; N-acetylneuraminic acid phosphate synthase; N-acetylneuraminic acid synthase; NANS; SAS.		
Amino Acid Sequence	MGSSHHHHHH SGLVPRGSH MPLELELCPG RWVGGQHPCF IIAEIGQNHQ GDLDVAKRMI RMAKECGADC AKFQKSELEF KFNRKALERP YTSKHSWGKT YGEHKRHLEF SHDQYRELQR YAEVGIFFT ASGMDEMAVE FLHELNVPPF KVGSGDTNNF PYLEKTAKKG RPMVISSGMQ SMDTMKQVYQ IVKPLNPNFC FLQCTSAYPL QPEDVNLRVI SEYQKLFPI PIGYSGHETG IASVAAVAL GAKVLERHIT LDKTWKGS DH SASLEPGELA ELVRSVRLVE RALGSPTKQL LPCEMACNEK LGKSVVAKVK IPEGTILTMD MLTVKVGE PK GYPEDIFNL VGKKVLTVE EDDTIMEELV DNHGKKIKS.		
Formulation	The NANS solution (0.5 mg/ml) contains 20mM Tris-HCl buffer (pH8.0), 0.1M NaCl, 1mM DTT and 10% glycerol.		

Introduction

NANS is a 359 amino acid protein that contains one AFP (antifreeze proteins)-like domain and functions in the biosynthesis of sialic acids. The ubiquitously expressed NANS enzymatically catalyzes the H₂O-dependent formation of N-acetylneuraminic acid (Neu5Ac) and 2-keto-3-deoxy-D-glycero-D-galacto-nononic acid (KDN), both of which are sialic acids. NANS uses N-acetylmannosamine 6-phosphate as a substrate for Neu5Ac synthesis and mannose 6-phosphate as a substrate for KDN synthesis.

Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1%

Caution: Product has not been fully validated for medical applications. For research use only.

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HSA or BSA). Avoid multiple freeze-thaw cycles.

Background

NANS Human Recombinant fused with a 20 amino acid His tag at N-terminus produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 379 amino acids (1-359 a.a.) and having a molecular mass of 42.4kDa. The NANS is purified by proprietary chromatographic techniques.

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