

## Product datasheet for **TP720942M**

### **NANS (NM\_018946) Human Recombinant Protein**

#### **Product data:**

<b>Product Type:</b>	Recombinant Proteins
<b>Description:</b>	Purified recombinant protein of Human N-acetylneuraminic acid synthase (NANS)
<b>Species:</b>	Human
<b>Expression Host:</b>	E. coli
<b>Expression cDNA Clone or AA Sequence:</b>	Met1-Ser359
<b>Tag:</b>	N-His
<b>Predicted MW:</b>	42 kDa
<b>Purity:</b>	>95% as determined by SDS-PAGE and Coomassie blue staining
<b>Buffer:</b>	Provided lyophilized from a 0.2 $\mu$ m filtered solution of 20 mM Tris-HCl, 150 mM NaCl
<b>Endotoxin:</b>	Endotoxin level is < 0.1 ng/ $\mu$ g of protein (< 1 EU/ $\mu$ g)
<b>Storage:</b>	Store at -80°C.
<b>Stability:</b>	Stable for at least 3 months from date of receipt under proper storage and handling conditions.
<b>RefSeq:</b>	<a href="#">NP_061819</a>
<b>Locus ID:</b>	54187
<b>UniProt ID:</b>	<a href="#">Q9NR45</a>
<b>RefSeq Size:</b>	1257
<b>Cytogenetics:</b>	9q22.33
<b>RefSeq ORF:</b>	1077
<b>Synonyms:</b>	HEL-S-100; SAS; SEMDCG; SEMDG



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**Summary:**

This gene encodes an enzyme that functions in the biosynthetic pathways of sialic acids. In vitro, the encoded protein uses N-acetylmannosamine 6-phosphate and mannose 6-phosphate as substrates to generate phosphorylated forms of N-acetylneuraminic acid (Neu5Ac) and 2-keto-3-deoxy-D-glycero-D-galacto-nononic acid (KDN), respectively; however, it exhibits much higher activity toward the Neu5Ac phosphate product. In insect cells, expression of this gene results in Neu5Ac and KDN production. This gene is related to the E. coli sialic acid synthase gene neuB, and it can partially restore sialic acid synthase activity in an E. coli neuB-negative mutant. [provided by RefSeq, Jul 2008]

**Protein Pathways:**

Amino sugar and nucleotide sugar metabolism, Metabolic pathways