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AR09723PU-N Human NANS (1-359, His-tag) - Purified

Alternate names: N-acetylneuraminate synthase, SAS, Sialic acid synthase

Quantity: 0.1 mg

Concentration: 0.5 mg/ml (determined by Bradford assay)

Background: NANS, also known as SAS, is a 359 amino acid protein that contains one AFP (antifreeze proteins)-like domain and functions in the biosynthesis of sialic acids. Expressed ubiquitously, 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.

Uniprot ID: Q9NR45

NCBI: NP_061819

GeneID: 54187

Species: Human

Source: E. coli

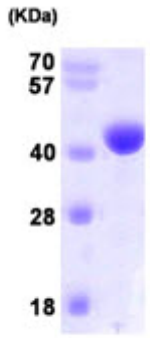
Format:
State: Liquid purified protein
Purity: >95%
Buffer System: 20 mM Tris-HCl buffer (pH8.0) containing 0.1M NaCl, 1mM DTT, 10% glycerol

Description: Recombinant human NANS protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography techniques.
AA Sequence:
MGSSHHHHHH SSGLVPRGSH MPLELELCPG RWVGGQHPCF IIAEIGQNHQ GDLDVAKRMI
RMAKECGADC AKFQKSELEF KFNRKALERP YTSKHSWGKT YGEHKRHLEF SHDQYRELQR
YAEEVGIFFT ASGMDEMAVE FLHELNVPFF KVGSGDTNNF PYLEKTAKKG RPMVISSGMQ
SMDTMKQVYQ IVKPLNPNFC FLQCTSAYPL QPEDVNLRVI SEYQKLFPDI PIGYSGHETG
IAISVAAVAL GAKVLERHIT LDKTWKGSDH SASLEPGELA ELVRSVRLVE RALGSPTKQL
LPCEMACNEK LGKSVVAKVK IPEGTILTMD MLTVKVGEPK GYPPEDIFNL VGKKVLVTVE
EDDTIMEELV DNHGKKIKS
Molecular weight: 42.4 kDa (379aa) 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.

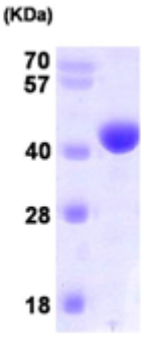
General Readings:
Milstein O., et al. (2008) J Biol Chem. 283(49):34414-22.
Aldape MJ., et al. (2007) J Infect Dis. 195(12):1838-45.

Pictures:



15% SDS-PAGE (3ug)

Recombinant human NANS, 1-359 aa, His-tagged



15% SDS-PAGE (3ug)