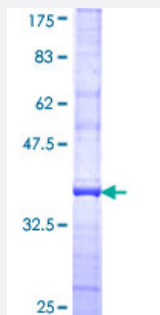


CMAH (Human) Recombinant Protein (Q01)

Catalog # H00008418-Q01

Size 25 ug, 10 ug

Applications



Specification

Product Description	Human CMAH partial ORF (BAA31160, 385 a.a. - 485 a.a.) recombinant protein with GST-tag at N-terminal.
Sequence	GYDYLVDFLDLSFPKERPQREHPYEEIHSRVDVIRHVVKNGLLWDELYIGFQTRLQRDPDIYHHLF WNHFQIKLPLTPPNWKSFLMCCEQNGPAILQECKT
Host	Wheat Germ (in vitro)
Theoretical MW (kDa)	36.85
Preparation Method	in vitro wheat germ expression system
Purification	Glutathione Sepharose 4 Fast Flow
Quality Control Testing	12.5% SDS-PAGE Stained with Coomassie Blue.
Storage Buffer	50 mM Tris-HCl, 10 mM reduced Glutathione, pH=8.0 in the elution buffer.
Storage Instruction	Store at -80°C. Aliquot to avoid repeated freezing and thawing.
Note	Best use within three months from the date of receipt of this protein.

Applications

- Enzyme-linked Immunoabsorbent Assay
- Western Blot (Recombinant protein)
- Antibody Production
- Protein Array

Gene Info — CMAH

Entrez GeneID	8418
GeneBank Accession#	D86324
Protein Accession#	BAA31160
Gene Name	CMAH
Gene Alias	CMAHP, CSAH
Gene Description	cytidine monophosphate-N-acetylneuraminic acid hydroxylase (CMP-N-acetylneuraminate monooxygenase) pseudogene
Omim ID	603209
Gene Ontology	Hyperlink

Gene Summary	<p>Sialic acids are terminal components of the carbohydrate chains of glycoconjugates involved in ligand-receptor, cell-cell, and cell-pathogen interactions. The two most common forms of sialic acid found in mammalian cells are N-acetylneuraminic acid (Neu5Ac) and its hydroxylated derivative, N-glycolyneuraminic acid (Neu5Gc). Studies of sialic acid distribution show that Neu5Gc is not detectable in normal human tissues although it was an abundant sialic acid in other mammals. Neu5Gc is, in actuality, immunogenic in humans. The absence of Neu5Gc in humans is due to a deletion within the human gene CMAH encoding cytidine monophosphate-N-acetylneuraminic acid hydroxylase, an enzyme responsible for Neu5Gc biosynthesis. Sequences encoding the mouse, pig, and chimpanzee hydroxylase enzymes were obtained by cDNA cloning and found to be highly homologous. However, the homologous human cDNA differs from these cDNAs by a 92-bp deletion in the 5' region. This deletion, corresponding to exon 6 of the mouse hydroxylase gene, causes a frameshift mutation and premature termination of the polypeptide chain in human. It seems unlikely that the truncated human hydroxylase mRNA encodes for an active enzyme explaining why Neu5Gc is undetectable in normal human tissues. Human genomic DNA also shows evidence of this deletion which does not occur in the genomes of African great apes. Nonetheless, the CMAH gene maps to 6p21.32 in humans and great apes indicating that mutation of the CMAH gene occurred following human divergence from chimpanzees and bonobos. [provided by RefSeq]</p>
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Other Designations

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