Recombinant human UMPS protein

Catalog Number: ATGP1788

PRODUCT INFORMATION

Expression system
E.coli

Domain
1-480aa

UniProt No.
P11172

NCBI Accession No.
NP_000364

Alternative Names
uridine 5'-monophosphate synthase, OPRT

PRODUCT SPECIFICATION

Molecular Weight
54.3 kDa (500aa)

Concentration
1mg/ml (determined by Bradford assay)

Formulation
Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 2M urea, 20% glycerol

Purity
> 85% by SDS-PAGE

Tag
His-Tag

Application
SDS-PAGE, Denatured

Storage Condition
Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

BACKGROUND

Description
uridine 5'-monophosphate synthase, also known as UMPS, is a bifunctional enzyme that catalyzes the final two steps of the de novo pyrimidine biosynthetic pathway. unlike prokaryotes, UMPS in eukaryotes combines the orotate phosphoribosyltransferase and the orotidine-5'-monophosphate (OMP) decarboxylase activities into a single protein. The union of these two enzymes is thought to stabilize the catalytic centers due to the low molar concentration of the protein in mammalian cells. Defects in this gene are the cause of hereditary orotic aciduria. Recombinant human UMPS protein, fused to His-tag at N-terminus, was expressed in E. coli.

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Amino acid Sequence

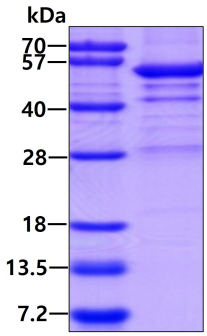
<MGSSHHHHHH SSGLVPRGSH> MAVARAALGP LVTGLYDVQA FKFGDFVLKS GLSSPIYIDL RGIVSRPRLL SQVADILFQT AQNAGISFDT VCGVPYTALP LATVICSTNQ IPMLIRRKET KDYGTKRLVE GTINPGETCL IIEDVVTSGS SVLETVEVLQ KEGLKVTDAI VLLDREQGGK DKLQAHGIRL HSVCTLSKML EILEQQKKVD AETVGRVKRF IQENVFVAAN HNGSPLSIKE APKELSFGAR AELPRIHPVA SKLLRLMQKK ETNLCLSADV SLARELLQLA DALGPSICML KTHVDILNDF TLDVMKELIT LAKCHEFLIF EDRKFADIGN TVKKQYEGGI FKIASWADLV NAHVVPGSGV VKGLQEVGLP LHRGCLLIAE MSSTGSLATG DYTRAAVRMA EEHSEFVVGF ISGSRVSMKP EFLHLTPGVQ LEAGGDNLGQ QYNSPQEVIG KRGSDIIIVG RGIISAADRL EAAEMYRKAA WEAYLSRLGV

General References

Suchi M., et al. (1997) Genet. 60:525-539.
Yablonski M J., et al. (1996) J Biol Chem. 271:10704-10708.

DATA

SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.