

UMPS, 1-480aa

Cat.NO.: TP04428

3th Edition

Synonyms:Uridine 5'-monophosphate synthase, OPRT.

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.

Form:Liquid. In 20mM Tris-HCl buffer (pH 8.0) containing 2M Urea, 20% glycerol

Molecular Weight:54.3 kDa (500aa)

Sequences:

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MGSSHHHHHSSGLVPRGSHMAVARAALGPLVTGLYDVQAFKFGDFVLKSGLSSPIYIDLRGIVSRPRLLSQVADIL
FQTAQNAGISFDTVCGVPYTALPLATVICSTNQIPMLIRRKETKDYGTKRLVEGTINPGETCLIEDVVTSGSSVLETV
EVLQKEGLKVTDIAIVLLDREQGGKDKLQAHGIRLHSVCTLSKMLEILEQQKKVDAETVGRVVKRFIQENVFVAANHNG
SPLSIKEAPKELSFGARAEIPRIHPVASKLLRLMQKKTNLCLSADVSLARELLQLADALGPSICMLKTHVDILNDFTL
DVMKELITLAKCHEFLIFEDRKFADIGNTVKKQYEGGIFKIASWADLVNAHVVPGSGVVKGLQEVLPLHRGCLLIAE
MSSTGSLATGDYTRAAVRMAEEHSEFVVGFIGSRVSMKPEFLHLTPGVQLEAGDNLGQQYNPQEVIGKRGSD
IIIVGRGIISAADRLEAAEMYRKAWEAYLSRLGV
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Purity:> 95% by HPLC

Concentration:1 mg/ml (determined by Bradford assay)

Endotoxin Level:<1.0 EU per 1 ug of protein (determined by LAL method)

Storage:Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.