PRODUCT INFORMATION

Expression system Baculovirus

Domain 1-480aa

UniProt No. P11172

NCBI Accession No. NP_000364.1

Alternative Names Uridine 5'-monophosphate synthase, UMPS, OPRT

PRODUCT SPECIFICATION

Molecular Weight 53 kDa (486aa)

Concentration 0.25mg/ml (determined by absorbance at 280nm)

Formulation

Liquid in. Phosphate-Buffered Saline (pH 7.4) containing 30% glycerol

Purity

> 95% by SDS-PAGE

Endotoxin level < 1 EU per 1ug of protein (determined by LAL method)

Tag His-Tag

Application SDS-PAGE

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

UMPS, also known as uridine 5'-monophosphate synthase, is a bifunctional enzyme catalyzing the last two steps of de novo pyrimidine biosynthesis. It is an indispensable component in this metabolic pathway and is a target for antimalarial and antitumor drugs. Its expression in colorectal carcinoma tissues is not correlated with the toxicities of 5-FU-based regimen, but It in the normal tissues can help predict the toxicities associated with 5-FU.



Recombinant human UMPS, fused to His-tag at C-terminus, was expressed in insect cell and purified by using conventional chromatography techniques.

Amino acid Sequence

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 <HHHHHH>

General References

Zhang Y., et al. (2013) J Biol Chem. 288:34746-34754. Dong Q., et al. (2012) Nan Fang Yi Ke Da Xue Xue Bao. 32:1179-1181.

DATA

SDS-PAGE



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

