

Recombinant Human Uridine/Cytidine Kinase UCK2

Cat. No. CEGZ-6398

Lot. No. (See product label)

Introduction

Description

A recombinant human UCK2 isoform 1 enzyme that phosphorylates pyrimidine ribonucleosides with defined selectivity against deoxyribonucleosides and purine ribonucleosides.

Applications

For research and in vitro phosphorylation of uridine, cytidine, and related pyrimidine ribonucleoside analogs to their monophosphate forms.

Synonyms

hUCK2; UCK; URK1; pyrimidine ribonucleoside kinase; uridine-cytidine kinase; uridine kinase; uridine phosphokinase; ATP:uridine 5'-phosphotransferase; ATP:uridine/cytidine 5'-phosphotransferase

Product Information

Species

Homo sapiens

Source

Recombinant E. coli

Form

Liquid

EC Number

EC 2.7.1.48

CAS No.

9026-39-5

Molecular Weight

30.7 kDa

Specificity

Uridine, cytidine, and related pyrimidine ribonucleoside analogs; does not phosphorylate deoxyribonucleosides or purine ribonucleosides.

Substrates

ATP; uridine; cytidine

Reaction

ATP + uridine = ADP + UMP
ATP + cytidine = ADP + CMP

Notes

Mesophilic enzyme with broad acceptance of pyrimidine ribonucleotides. Recombinant protein produced in E. coli and purified by His6-tag affinity chromatography. Optimal reaction time and enzyme concentration may vary depending on the substrate.

Protocol

70 mM Tris-HCl, pH 7.6 (at 37°C) 10 mM MgCl₂ 5 mM uridine 6 mM ATP 0.04 g/L enzyme 37°C, 1 h

Usage

Research and in vitro use only.

Storage and Shipping Information

Storage

-20°C