Recombinant UCK2 protein (His tag)

Catalog Number	541202
Synonyms	UCK 2; Cytidine monophosphokinase 2; Testis-specific protein TSA903; Uridine monophosphokinase 2
Species	Human
Expression System	E. coli
Accession	Q9BZX2
Molecular Weight	Predictes a molecular mass of 27.56 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 29 kDa band.

Product Information

Sequence Region	2-231
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>86%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 2-231 aa (Q9BZX2) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Recombinant Human Uridine-cytidine kinase 2 (UCK2) Fragment (aa 2-231) - A high-quality recombinant protein fragment of UCK2, specifically engineered for structural and biochemical studies. This 230-amino acid fragment maintains the essential catalytic activity of the full-length enzyme, providing researchers with a stable and soluble tool for investigating nucleoside phosphorylation mechanisms. Uridine-cytidine kinase 2 (UCK2) is a key enzyme in the nucleotide salvage pathway that specifically phosphorylates uridine and cytidine to their respective monophosphate forms using ATP or GTP as phosphate donors. The enzyme demonstrates remarkable substrate specificity, exclusively targeting ribonucleosides while showing no activity toward deoxyribonucleosides or purine ribonucleosides. UCK2 plays a crucial role in cellular nucleotide metabolism and exhibits broad substrate tolerance, efficiently phosphorylating various nucleoside analogs including 6-azauridine, 5-fluorouridine, and 5-fluorocytidine, making it particularly relevant for pharmacological research involving nucleoside-based therapeutics. The recombinant fragment (aa 2-231) represents a computationally optimized, stable domain that preserves the enzyme's catalytic function while offering enhanced solubility for experimental applications.