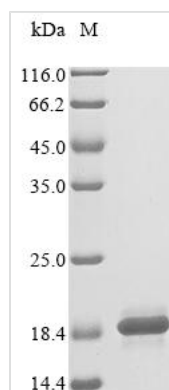




Recombinant Human Cyclin-dependent kinases regulatory subunit 2 (CKS2)

Product Code	CSB-EP005468HU
Abbreviation	Recombinant Human CKS2 protein
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	P33552
Storage Buffer	Tris-based buffer,50% glycerol
Product Type	Recombinant Proteins
Immunogen Species	Homo sapiens (Human)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	MAHKQIYYSDKYFDEHYEYRHVMLPRELSKQVPKTHLMSEEEWRRLGVQQSL GWVHYMIHEPEPHILLFRRPLPKDQQK
Research Area	Cell Biology
Source	E.coli
Target Names	CKS2
Protein Names	Recommended name: Cyclin-dependent kinases regulatory subunit 2 Short name= CKS-2
Expression Region	1-79aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 10xHis-tagged and C-terminal Myc-tagged
Mol. Weight	17.3 kDa
Protein Length	Full Length

Image



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.



Description

Recombinant Human Cyclin-dependent kinases regulatory subunit 2 (CKS2) is expressed in *E. coli*, covering the full-length protein from amino acids 1 to 79. The protein carries an N-terminal 10xHis-tag and a C-terminal Myc-tag, which should help with purification and detection. SDS-PAGE analysis confirms the product shows purity greater than 90%, making it appropriate for various research applications.

CKS2 appears to be an integral component of the cell cycle. It plays what seems to be a crucial role in regulating cyclin-dependent kinases. Research suggests it's involved in cell cycle progression, and scientists have studied its interactions with other cell cycle proteins to better understand cell division mechanisms. This likely makes CKS2 a valuable protein for research in cellular regulation and cancer studies.

Potential Applications

Note: The applications listed below are based on what we know about this protein's biological functions, published research, and experience from experts in the field. However, we haven't fully tested all of these applications ourselves yet. We'd recommend running some preliminary tests first to make sure they work for your specific research goals.

1. Protein-Protein Interaction Studies Using Pull-Down Assays

The dual-tagged CKS2 protein with N-terminal His-tag and C-terminal Myc-tag may enable comprehensive protein-protein interaction studies through pull-down experiments. The His-tag should allow for immobilization on nickel-affinity matrices to capture potential binding partners from cell lysates or purified protein libraries. Meanwhile, the Myc-tag provides an additional detection method for Western blot confirmation of successful protein capture and complex formation. This approach could help identify novel CKS2 interacting proteins or validate known interactions under controlled in vitro conditions.

2. Antibody Development and Validation

The recombinant CKS2 protein with >90% purity appears to serve as an excellent antigen for generating specific antibodies against human CKS2. Since it's the full-length protein (1-79aa), antibodies can likely be raised against various epitopes across the entire CKS2 sequence. The dual tags should allow for straightforward purification and quality control during antibody development processes. Generated antibodies can then be validated using the same recombinant protein in ELISA, Western blot, and immunoprecipitation assays to confirm specificity and binding affinity.

3. Biochemical Characterization and Stability Studies

The purified recombinant CKS2 protein enables detailed biochemical characterization. This might include thermal stability analysis, pH sensitivity studies, and buffer optimization experiments. Researchers can subject the protein to various analytical techniques such as dynamic light scattering, circular



dichroism spectroscopy, and size exclusion chromatography to determine its biophysical properties. The dual-tag system appears to help with protein detection and quantification throughout these characterization studies, providing reliable methods for monitoring protein integrity and concentration.

4. In Vitro Binding Assays and Competition Studies

The tagged CKS2 protein can be used in plate-based binding assays to study its interaction with known binding partners or to screen for potential inhibitors. The His-tag should enable direct coating onto nickel-coated plates, while the Myc-tag allows for detection using anti-Myc antibodies in ELISA-format assays. Competition binding experiments may be performed to determine binding kinetics and to evaluate how various compounds or mutations affect CKS2 interactions.

Shelf Life

The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself.

Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.