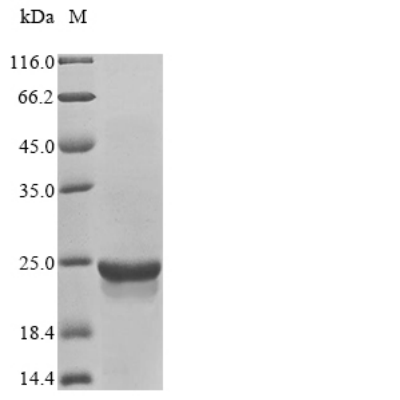
Recombinant Human Serine/threonine-protein kinase mTOR (MTOR), partial

Product Code	CSB-EP008968HU
Abbreviation	Recombinant Human MTOR protein, partial
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.	P42345
Form	Liquid or Lyophilized powder
Storage Buffer	If the delivery form is liquid, the default storage buffer is Tris/PBS-based buffer, 5%-50% glycerol. If the delivery form is lyophilized powder, the buffer before lyophilization is Tris/PBS-based buffer, 6% Trehalose.
Product Type	Recombinant Proteins
Immunogen Species	Homo sapiens (Human)
Purity	Greater than 85% as determined by SDS-PAGE.
Sequence	VSEELIRVAILWHEMWHEGLEEASRLYFGERNVKGMFEVLEPLHAMMERGPQ TLKETSFNQAYGRDLMEAQEWCRKYMKSGNVKDLTQAWDLYYHVFRRISKQ LPQLTSLELQYVSPKLLMCRDLELAVPGTY
Research Area	Cancer
Source	E.coli
Target Names	MTOR
Protein Names	Recommended name: Serine/threonine-protein kinase mTOR EC= 2.7.11.1 Alternative name(s): FK506-binding protein 12-rapamycin complex-associated protein 1 FKBP12-rapamycin complex-associated protein Mammalian target of rapamycin S
Expression Region	2012-2144aa
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	23.2 kDa
Protein Length	Partial
Image	



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

Description

The region for expressing recombinant Human MTOR contains amino acids 2012-2144. The expected molecular weight for the MTOR protein is calculated to be 23.2 kDa. Expression of this MTOR protein is conducted in e.coli. The MTOR gene fragment has been modified by fusing the N-terminal 10xHis tag and C-terminal Myc tag, providing convenience in detecting and purifying the recombinant MTOR protein during the following stages.

The human serine/threonine-protein kinase mTOR is a key regulator of cellular processes, integrating signals from various pathways to control cell growth, proliferation, and metabolism. mTOR exists in two distinct complexes, mTOR Complex 1 (mTORC1) and mTOR Complex 2 (mTORC2), each with specific functions. mTORC1 regulates protein synthesis, cell growth, and autophagy in response to nutrient availability and growth factors. mTORC2 influences cell survival, cytoskeletal organization, and metabolism. Dysregulation of mTOR signaling is implicated in various diseases, including cancer and metabolic disorders. Targeting mTOR has therapeutic implications, making it a prominent focus in cancer research and drug development. Understanding mTOR's intricate functions contributes to insights into cellular homeostasis and disease mechanisms.

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL.We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

Shelf Life

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