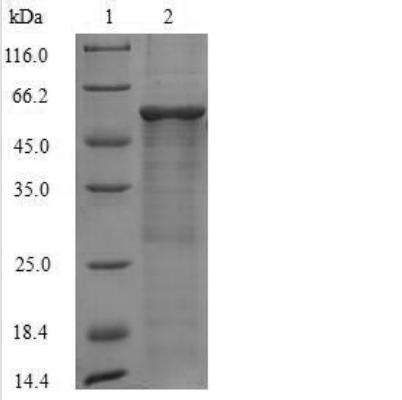
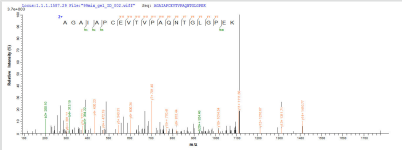
Recombinant Mouse 60S acidic ribosomal protein P0 (Rplp0)

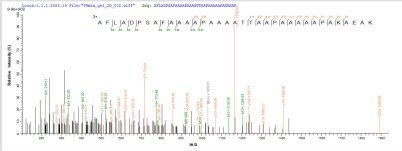
Product Code	CSB-EP020336MO
Relevance	Ribosomal protein P0 is the functional equivalent of E.coli protein L10.
Abbreviation	Recombinant Mouse Rplp0 protein
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. 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.	P14869
Alias	60S ribosomal protein L10E
Product Type	Recombinant Protein
Immunogen Species	Mus musculus (Mouse)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	MPREDRATWKSNYFLKIIQLLDDYPKCFIVGADNVGSKQMQQIRMSLRGKAVV LMGKNTMMRKAIRGHLENNPALEKLLPHIRGNVGFVFTKEDLTEIRDMLLANKV PAAARAGAIAPCEVTVPAQNTGLGPEKTSFFQALGITTKISRGTIEILSDVQLIKT GDKVGASEATLLNMLNISPFSFGLIIQQVFDNGSIYNPEVLDITEQALHSRFLEG VRNVASVCLQIGYPTVASVPHSIINGYKRVLALSVETEYTFPLTEKVKAFLADPS AFAAAAPAAAATTAAPAAAAAPAKAEAKEESEESDEDMGFGLFD
Research Area	Epigenetics and Nuclear Signaling
Source	E.coli
Target Names	Rplp0
Protein Names	Recommended name: 60S acidic ribosomal protein P0 Alternative name(s): 60S ribosomal protein L10E
Expression Region	1-317aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 10XHis-SUMO-tagged and C-terminal Myc-tagged
Mol. Weight	54.2kDa
Protein Length	Full Length
Image	



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



Based on the SEQUEST from database of E.coli host and target protein, the LC-MS/MS Analysis result of CSB-EP020336MO could indicate that this peptide derived from E.coli-expressed Mus musculus (Mouse) Rplp0.



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Description

Recombinant Mouse 60S acidic ribosomal protein P0 (Rplp0) is produced using an E. coli expression system, which appears to offer both high yield and consistent performance. This full-length protein spans amino acids 1-317 and comes with an N-terminal 10XHis-SUMO tag plus a C-terminal Myc tag—features that likely improve both purification and detection capabilities. SDS-PAGE analysis indicates purity levels above 90%, suggesting this product may be well-suited for research applications that demand high-quality reagents.

The 60S acidic ribosomal protein P0 represents a key component of the ribosomal machinery. It's part of the large ribosomal subunit and seems to play an important role during the elongation phase of translation. This positioning makes it essential for maintaining both efficiency and accuracy in mRNA translation, which could explain why it's become a valuable target for studies examining ribosome function and protein biosynthesis pathways.

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. Ribosome Assembly and Biogenesis Studies

Researchers might find this recombinant Rplp0 protein useful for exploring how ribosomal subunits assemble and understanding P0's specific role in 60S

ribosomal subunit formation. The complete protein sequence (1-317aa) provides what appears to be the full functional domain structure needed for studying protein-protein interactions within ribosomal complexes. Scientists could examine how P0 integrates into the ribosomal stalk structure and assess its contribution to overall ribosome stability through in vitro reconstitution experiments.

2. Protein-Protein Interaction Mapping

The dual-tag design—featuring both N-terminal His-SUMO and C-terminal Myc tags—may enable more comprehensive interaction studies with other ribosomal proteins and assembly factors. Pull-down experiments using either tag could help identify binding partners involved in ribosome biogenesis or ribosomal protein complex formation. Given the high purity levels (>90%), researchers are likely to see more reliable results in co-immunoprecipitation and protein complex analysis experiments.

3. Antibody Development and Validation

This purified recombinant protein could serve as an effective antigen for creating specific antibodies against mouse Rplp0. The high purity level suggests it would work well in immunization protocols and subsequent antibody characterization through ELISA, Western blot, and immunofluorescence validation studies. The Myc tag offers an additional epitope that might prove useful for developing tag-specific detection methods and confirming antibody specificity.

4. Biochemical Characterization and Stability Studies

Scientists may want to use this recombinant protein for detailed biochemical analysis, including thermal stability, pH tolerance, and buffer compatibility studies related to ribosomal protein function. The protein could be tested for folding properties, aggregation behavior, and stability under different experimental conditions. Such studies might provide fundamental insights into Rplp0's biochemical properties—information that appears essential for understanding its role in ribosomal function.

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	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.