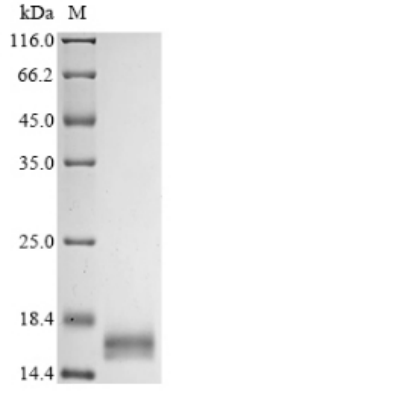
Recombinant Mouse Angiogenin (Ang)

Product Code	CSB-YP001703MO
Abbreviation	Recombinant Mouse Ang 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.	P21570
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 Protein
Immunogen Species	Mus musculus (Mouse)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	QDDSRYTKFLTQHHDAKPKGRDDRYCERMMKRRSLTSPCKDVNTFIHGNKS NIKAICGANGSPYRENLRMSKSPFQVTTCKHTGGSPRPPCQYRASAGFRHVVI ACENGLPVHFDESFFSL
Research Area	Cancer
Source	Yeast
Target Names	Ang
Expression Region	25-145aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 6xHis-tagged
Mol. Weight	15.8 kDa
Protein Length	Full Length of Mature Protein
Image	



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

Description

Recombinant Mouse Angiogenin (Ang) comes from a yeast expression system and covers the complete mature protein sequence, spanning amino acids 25-145. The protein carries an N-terminal 6xHis tag, which makes purification and detection more straightforward. SDS-PAGE analysis shows purity levels above 90%, which appears adequate for most research purposes. This product is designed strictly for research applications and maintains low endotoxin levels - something that may help ensure more consistent experimental results.

Angiogenin represents a key protein in angiogenesis, the biological process where new blood vessels grow from existing ones. The protein is recognized for its ribonucleolytic activity and seems to play an important role in vascular development and wound healing processes. Scientists also examine angiogenin's involvement in cellular activities like cell proliferation and migration, which makes it an interesting target for cancer and neurological 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 His-Tag Pull-Down Assays

That N-terminal 6xHis tag allows for nickel-affinity based pull-down experiments to hunt down potential binding partners. Researchers can attach the protein to nickel-coated beads or columns, then mix it with cell lysates or purified protein libraries to trap interacting molecules. This method appears particularly useful for investigating angiogenin's molecular interactions in mouse-specific research settings. The >90% purity level should be sufficient for these binding studies, since minor contaminants are unlikely to mess with specific protein-protein interactions.

2. Antibody Development and Validation

This recombinant mouse angiogenin may work well as an immunogen for creating mouse angiogenin-specific antibodies, or as a standard for testing existing antibodies. The high purity (>90%) and complete mature protein structure suggest it could be suitable for immunization protocols in rabbits or other host animals. Scientists can also use the His-tagged protein in ELISA-based screening to identify and characterize antibody specificity and binding strength. It might serve as a positive control in Western blotting and immunoprecipitation experiments targeting mouse angiogenin.

3. Comparative Species-Specific Biochemical Analysis

Mouse-specific angiogenin can be compared side-by-side with human or other mammalian angiogenin variants to explore species-specific differences in protein behavior. Scientists can run comparative binding tests, stability studies,

and structural analyses to understand how angiogenin function has evolved across different species. The yeast expression system provides a eukaryotic folding environment that likely preserves more native-like protein shapes. These kinds of studies may reveal important information about what angiogenin properties have stayed the same or changed across mammalian species.

4. Protein Stability and Folding Studies

Researchers can use the recombinant mouse angiogenin for biophysical characterization studies to examine protein stability, folding kinetics, and thermal properties. Methods like differential scanning calorimetry, circular dichroism spectroscopy, and dynamic light scattering can help characterize the protein's structural features. The His-tag makes protein purification and concentration adjustments easier for these analytical techniques. Such studies may provide fundamental insights into mouse angiogenin's biophysical properties and could help determine the best storage and handling conditions for research work.

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.