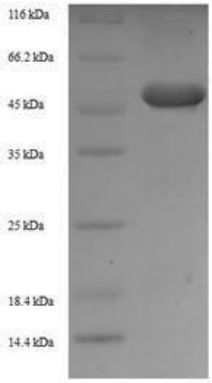
Recombinant Mouse Zinc finger protein 346 (Znf346)

Product Code	CSB-EP026691MO
Relevance	Binds with low affinity to dsDNA and ssRNA, and with high affinity to dsRNA, with no detectable sequence specificity.
Abbreviation	Recombinant Mouse Znf346 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.	Q9R0B7
Alias	Just another zinc finger protein
Product Type	Recombinant Protein
Immunogen Species	Mus musculus (Mouse)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	MECPAPDATDAADPGEAGPYKGSEEPEGREPDGVRFDRERARRLWEAVSGA QPAGREEVEHMIQKNQCLFTSTQCKVCCAMLISESQKLAHYQSKKHANKVKR YLAIHGMETIKGDVKRLDSDQKSSRSKDKNHCCPICNMTFSSPAVAQSHYLGK THAKSLKLKQQSTKGAALQQNREMLDPDKFCSLCHSTFNDPAMAQQHYMGK RHRKQETKLKLMAHYGRLADPAVSDLPAGKGYPCKTCKIVLNSIEQYQAHVSG FKHKNQSPKTLVTLGSQTPVQTQPTPKDSSTVQD
Research Area	Others
Source	E.coli
Target Names	Znf346
Expression Region	1-294aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 6xHis-SUMO-tagged
Mol. Weight	48.7kDa
Protein Length	Full Length
Image	



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

Description

Recombinant Mouse Zinc finger protein 346 (Znf346) is produced in E.coli and includes the complete expression region spanning amino acids 1-294. The protein carries an N-terminal 6xHis-SUMO tag, which appears to improve both purification efficiency and overall stability. SDS-PAGE analysis confirms purity levels exceeding 90%, making it well-suited for detailed research applications. This product is designed exclusively for research purposes and should not be used for human or clinical applications.

Zinc finger protein 346 (Znf346) belongs to the zinc finger protein family, a group recognized for their DNA binding capabilities and roles in transcription regulation. Znf346 participates in several cellular processes, including gene expression control and RNA binding, which may explain its growing importance in studies focused on gene regulation and cellular signaling networks. This protein seems particularly useful for researchers trying to understand how transcriptional control actually works.

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 N-terminal 6xHis-SUMO tag makes purification and immobilization of recombinant mouse Znf346 relatively straightforward for pull-down experiments. Researchers can use this zinc finger protein as bait to fish out potential binding partners from mouse cell lysates or purified protein collections. The >90% purity level should reduce background noise from contaminating proteins that might interfere with interaction studies. Since this is the full-length construct (1-294aa), it likely preserves all the protein interaction domains that could be important for normal cellular binding events.

2. Antibody Development and Validation

High purity recombinant mouse Znf346 may serve as a solid immunogen for

creating specific antibodies against this zinc finger protein. The complete protein offers numerous epitopes for both monoclonal and polyclonal antibody generation. Researchers can then use the purified protein to test antibody specificity through ELISA, Western blot, and immunoprecipitation techniques. The His-SUMO tag simplifies purification and makes it easier to quantify the antigen for consistent immunization procedures.

3. Biochemical Characterization and Stability Studies

Purified recombinant protein opens the door for thorough biochemical analysis, including molecular weight determination, isoelectric point measurement, and thermal stability profiling. Scientists might use circular dichroism spectroscopy to examine the secondary structure and folding patterns of the zinc finger domains. Testing the protein under different buffer conditions and pH ranges could help establish the best storage and experimental parameters. These fundamental studies provide the groundwork needed for developing more sophisticated assays later.

4. In Vitro Binding Assays with Nucleic Acids

Since Znf346 is a zinc finger protein, recombinant mouse Znf346 could prove useful in electrophoretic mobility shift assays (EMSA) to explore possible DNA or RNA binding properties. The purified protein allows researchers to systematically test how well it binds to different nucleic acid sequences or structures. Surface plasmon resonance or fluorescence polarization techniques can measure binding kinetics and thermodynamics with greater precision. The His-SUMO tag helps with protein immobilization for biosensor-based binding experiments while keeping the protein intact.

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.