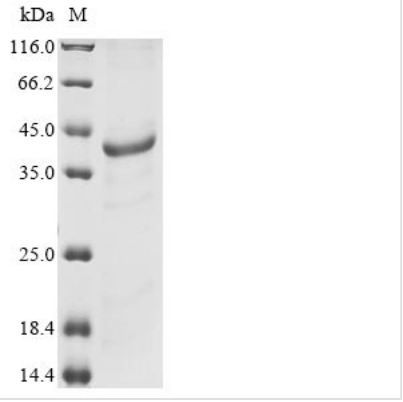
Recombinant Mouse Interferon-induced helicase C domain-containing protein 1 (Ifih1), partial

Product Code	CSB-EP819199MO
Abbreviation	Recombinant Mouse Ifih1 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.	Q8R5F7
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 85% as determined by SDS-PAGE.
Sequence	KLIKLRNTILEQFTRSEESSRGIIFTKTRQSTYALSQWIMENAKFAEVGVKAHHLI GAGHSSEVKPMTQTEQKEVISKFRTGEINLLIATTVAEEGLDIKECNIVIRYGLVT NEIAMVQARGRARADESTYVLVTSSGSGVTEREIVNDFREKMMYKAINRVQN MKPEEYAHKILELQVQSILEKKMKVKRSIAKQYNDNPSLITLLCKNCSMLVCSG ENIHVIEKMHHVNMTPEFKGLYIVRENKALQKKFADYQTNGEIICKCGQAWGT MMVHKGLDLPCLKIRNFVVNFKNNSPKKQYKKWVELPIRFPDLDYSEYCLYSD ED
Research Area	Epigenetics and Nuclear Signaling
Source	E.coli
Target Names	Ifih1
Expression Region	700-1025aa
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	41.5 kDa
Protein Length	Partial
Image	



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

Description

Recombinant Mouse Interferon-induced helicase C domain-containing protein 1 (Ifih1) is expressed in E. coli, representing the 700-1025 amino acid region of the protein. This partial protein carries an N-terminal 6xHis tag, which makes purification and detection more straightforward. The product reaches a purity level greater than 85% as determined by SDS-PAGE, ensuring high-quality results for research applications.

Interferon-induced helicase C domain-containing protein 1 (Ifih1) appears to be a crucial component of the innate immune response. It acts as a pattern recognition receptor, detecting viral RNA within cells and triggering antiviral pathways. Ifih1 likely plays a significant role in the body's defense mechanisms, making it an important subject of study in immunology and virology research.

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

This recombinant Ifih1 C-terminal domain fragment (700-1025aa) can be used to investigate protein interactions involving the C-terminal region of mouse Ifih1. The N-terminal 6xHis tag enables purification and immobilization for pull-down assays to identify binding partners. Co-immunoprecipitation experiments using the His-tagged protein may help map interaction networks and validate known binding relationships. The defined amino acid region allows for precise mapping of interaction domains within the C-terminal portion of Ifih1.

2. Antibody Development and Validation

The purified recombinant protein fragment serves as an immunogen for generating antibodies specific to the C-terminal domain of mouse Ifih1. The >85% purity level should be suitable for immunization protocols in antibody production workflows. The His-tagged protein can be used in ELISA-based screening to identify and characterize antibody specificity and binding affinity.

This defined protein fragment enables development of region-specific antibodies that distinguish the C-terminal domain from other Ifih1 domains.

3. Structural and Biochemical Characterization

The recombinant C-terminal domain fragment can be used for biophysical studies to characterize the structural properties of this specific Ifih1 region. Techniques such as circular dichroism spectroscopy, dynamic light scattering, and analytical ultracentrifugation may provide insights into protein folding, stability, and oligomerization state. The purified protein enables comparative structural studies between the isolated C-terminal domain and full-length Ifih1. The His tag makes protein purification easier for high-concentration samples required for structural analysis techniques.

4. In Vitro Functional Domain Analysis

This C-terminal domain fragment can be used to study the specific functional contributions of the 700-1025aa region to overall Ifih1 activity. Comparative assays using the isolated domain versus full-length protein can help delineate domain-specific functions. The recombinant fragment serves as a control or competitor in biochemical assays to assess the role of the C-terminal region in Ifih1-mediated processes. The defined boundaries of this protein fragment enable precise structure-function relationship studies within the C-terminal domain.

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.