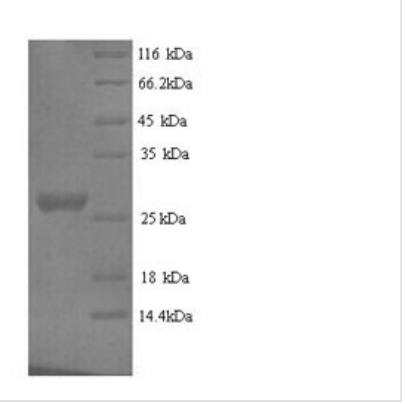
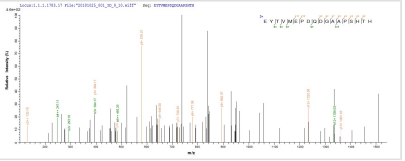
Recombinant Mouse Nidogen-1 (Nid1), partial

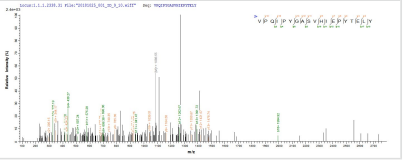
Product Code	CSB-YP015802MO
Relevance	Sulfated glycoprotein widely distributed in basent mbranes and tightly associated with laminin. Also binds to collagen IV and perlecan. It probably has a role in cell-Extracellular domain matrix interactions.
Abbreviation	Recombinant Mouse Nid1 protein, partial
Storage	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.	P10493
Alias	Entactin
Product Type	Recombinant Protein
Immunogen Species	Mus musculus (Mouse)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	SPQRVNGKVKGRIFVGSSQVPVVFENTDLHSYVVMNHGRSYTAISTIPETVGY SLLPLAPIGGIIGWMFAVEQDGFKNGFSITGGEFTRQAEVTFLGHPGKLVLKQQ FSGIDEHGHLTISTELEGRVPQIPYGASVHIEPYTELYHYSSSVITSSSTREYTV MEPDQDGAAPSHTHIYQWRQTITFQECAHDDARPALPSTQQLSVDSVFVLYN KEERILRYALSNSIGPVRDGSPDA
Research Area	Others
Source	Yeast
Target Names	Nid1
Protein Names	Recommended name: Nidogen-1 Short name= NID-1 Alternative name(s): Entactin
Expression Region	428-665aa
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	28.3kDa
Protein Length	Partial
Image	



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



Based on the SEQUEST from database of Yeast host and target protein, the LC-MS/MS Analysis result of CSB-YP015802MO could indicate that this peptide derived from Yeast-expressed Mus musculus (Mouse) Nid1.



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Description

Recombinant Mouse Nidogen-1 (Nid1) comes from yeast expression and covers a partial sequence spanning amino acids 428 to 665. It includes an N-terminal 6xHis-tag that makes purification straightforward. The protein shows a purity level exceeding 90% when verified by SDS-PAGE, which appears to ensure high-quality results in research applications. This product is intended for research use only.

Nidogen-1 serves as an essential component of the extracellular matrix. It's primarily involved in the structural organization and stability of basement membranes. The protein plays a critical role in cell-matrix interactions and participates in various biological pathways, including tissue development and repair processes. Its importance in research likely stems from its involvement in cell adhesion and signaling, making it a key focus in studies related to tissue engineering and regenerative medicine.

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. Extracellular Matrix Interaction Studies

This recombinant mouse Nidogen-1 fragment (428-665aa) can help investigate

protein-protein interactions within the extracellular matrix network. The expressed region may contain binding domains that interact with other ECM components such as laminin, collagen IV, or perlecan. Researchers might use this protein in binding assays, surface plasmon resonance, or co-immunoprecipitation experiments to map interaction networks. The N-terminal 6xHis tag makes purification and immobilization easier for these interaction studies.

2. Antibody Development and Validation

The recombinant Nidogen-1 fragment works well as an antigen for generating and validating antibodies specific to mouse Nidogen-1. Its high purity (>90%) and defined amino acid sequence (428-665aa) make it suitable for immunizing animals to produce polyclonal or monoclonal antibodies. This protein can also validate antibody specificity through ELISA, Western blot, or immunoprecipitation assays. The His-tag allows easy coating onto ELISA plates or immobilization for antibody screening applications.

3. Protein Structure-Function Analysis

This partial Nidogen-1 protein may prove useful in structural biology studies to understand the folding and domain organization of specific Nidogen-1 regions. Researchers can perform circular dichroism spectroscopy, dynamic light scattering, or limited proteolysis experiments to characterize the structural properties of this fragment. The defined boundaries (428-665aa) allow for systematic structure-function relationship studies by comparing this fragment with other Nidogen-1 domains or full-length protein.

4. Cell Adhesion and Migration Assays

The recombinant Nidogen-1 fragment works as a substrate in cell culture studies to examine its role in cell adhesion, spreading, and migration. Researchers can coat culture plates with this protein to assess how different cell types respond to this specific Nidogen-1 region. The His-tag makes controlled immobilization and quantification of protein coating density more manageable. These studies might provide insights into the functional significance of this particular Nidogen-1 domain in cellular processes.

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.