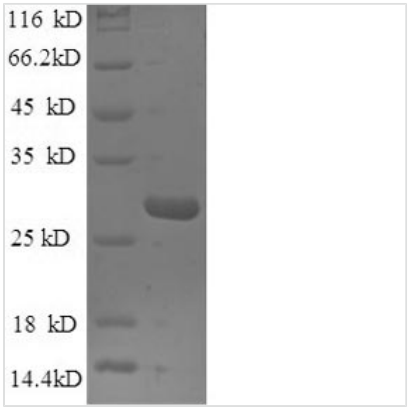
Recombinant Mouse Nidogen-1 (Nid1), partial

Product Code	CSB-EP015802MO
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	E.coli
Target Names	Nid1
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	30.3kDa
Protein Length	Partial
Image	



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

Description

Recombinant Mouse Nidogen-1 (Nid1) is a partial protein expressed in E. coli, covering the 428-665 amino acid region and featuring an N-terminal 6xHis-tag for simplified purification. The product is purified to greater than 90% as determined by SDS-PAGE, ensuring high quality for research applications. This protein is intended for research use only and is not suitable for any clinical or diagnostic purposes.

Nidogen-1 appears to be a crucial component of the extracellular matrix, playing what seems to be a significant role in basement membrane assembly and stability. It acts as a binding link between other matrix proteins—laminins and collagen IV, for instance—and likely proves essential for maintaining tissue architecture. Its apparent importance in structural integrity and cellular signaling makes it a valuable subject in studies related to cell adhesion and tissue development.

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 via His-Tag Pull-Down Assays

The N-terminal 6xHis-tagged recombinant mouse Nidogen-1 fragment (428-665aa) can be immobilized on nickel-affinity resins to identify potential binding partners from cell lysates or purified protein libraries. This partial fragment may retain specific binding domains that interact with extracellular matrix components or other proteins. The >90% purity suggests minimal background interference in pull-down experiments. Studies of this nature could help map the interaction network of this specific Nidogen-1 region in mouse tissue contexts.

2. Antibody Development and Validation

This purified recombinant protein fragment can serve as an immunogen for generating mouse Nidogen-1-specific antibodies. Alternatively, it might work as

a control antigen for antibody specificity testing. The high purity (>90%) and defined amino acid sequence (428-665aa) appear to make it suitable for immunization protocols or ELISA-based antibody characterization. The His-tag makes purification and immobilization straightforward for antibody screening assays. Researchers can use this fragment to develop region-specific antibodies targeting this particular domain of mouse Nidogen-1.

3. Biochemical Characterization and Stability Studies

Various biochemical analyses can be performed on the recombinant protein to characterize the biophysical properties of this specific Nidogen-1 fragment. Thermal stability assays, pH tolerance studies, and proteolytic sensitivity experiments may help researchers understand the structural characteristics of the 428-665aa region. The defined expression system (E.coli) and high purity likely enable reproducible biochemical measurements. Such characterization data would probably provide insights into the stability and handling requirements of this particular domain.

4. Comparative Species Analysis in Extracellular Matrix Research

This mouse-derived Nidogen-1 fragment can be used in comparative studies alongside human or other species' Nidogen-1 proteins to investigate what appears to be species-specific differences in extracellular matrix organization. The well-defined amino acid boundaries (428-665aa) allow for precise cross-species comparisons of this particular region. Researchers might examine differential binding properties or structural features between mouse and other mammalian Nidogen-1 variants. The His-tag seems to enable consistent purification and handling across comparative experimental setups.

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.