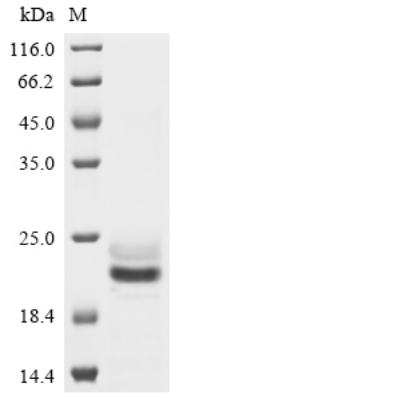
Recombinant Human E3 ubiquitin-protein ligase ZNRF3 (ZNRF3), partial

Product Code	CSB-YP890933HU
Abbreviation	Recombinant Human ZNRF3 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.	Q9ULT6
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	Homo sapiens (Human)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	KETAFVEVVLFESSPSGDYTTYTTGLTGRFSRAGATLSAEGEIVQMHPLGLCN NNDEEDLYEYGWVGVVKLEQPELDPKPCLTVLGKAKRAVQRGATAVIFDVSE NPEAIDQLNQGSEDPLKRPVVYVKGADAIKLMNIVNKQKVARARIQHRPPRQP TEYFDM
Research Area	Epigenetics and Nuclear Signaling
Source	Yeast
Target Names	ZNRF3
Expression Region	56-219aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	C-terminal 6xHis-tagged
Mol. Weight	19.7 kDa
Protein Length	Partial
Image	



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

Description

Recombinant Human E3 ubiquitin-protein ligase ZNRF3 (ZNRF3) comes from a yeast expression system and contains a partial protein length spanning amino acids 56 to 219. The product includes a C-terminal 6xHis-tag, which makes purification and detection more straightforward. SDS-PAGE analysis confirms the protein achieves greater than 90% purity, suggesting it should deliver reliable results in research applications.

ZNRF3 belongs to the E3 ubiquitin ligase family and appears to play a critical role in regulating the Wnt signaling pathway. Through this pathway modulation, ZNRF3 likely influences cellular proliferation, differentiation, and apoptosis. Its function seems vital for maintaining cellular homeostasis, which is why it has become a significant focus in various research areas—particularly those investigating cell signaling and cancer biology.

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 ZNRF3 fragment (56-219aa) with its C-terminal His-tag works well in pull-down assays designed to identify and characterize binding partners of the ZNRF3 protein. The His-tag allows for immobilization on nickel-affinity resins, enabling researchers to capture interacting proteins from cell lysates or purified protein libraries. Given that ZNRF3 is an E3 ubiquitin ligase, this fragment may still retain domains involved in substrate recognition or regulatory protein interactions. Studies like these could help clarify the molecular mechanisms that drive ZNRF3 function in cellular signaling pathways.

2. Antibody Development and Validation

The purified recombinant ZNRF3 protein fragment serves as an immunogen for generating specific antibodies against human ZNRF3. The >90% purity determined by SDS-PAGE appears suitable for immunization protocols in

antibody production. This protein can also function as a positive control and standard for validating the specificity and sensitivity of newly developed anti-ZNRF3 antibodies across various immunoassays. The defined amino acid region (56-219aa) offers a well-characterized epitope source for antibody screening applications.

3. Structural and Biochemical Characterization

This ZNRF3 protein fragment can be applied in biophysical studies to investigate the structural properties of the 56-219aa region of human ZNRF3. Its high purity level makes it appropriate for techniques like circular dichroism spectroscopy, dynamic light scattering, or analytical ultracentrifugation to assess protein folding and stability. The yeast expression system may yield properly folded protein that's suitable for preliminary structural studies. Such characterization could reveal insights into the domain organization and stability of this particular region of the E3 ubiquitin ligase.

4. ELISA-Based Quantitative Assays

The His-tagged ZNRF3 fragment can function as a capture antigen or standard in enzyme-linked immunosorbent assays (ELISA) for research applications. The C-terminal His-tag allows for oriented immobilization on nickel-coated plates, potentially improving assay reproducibility and sensitivity. This protein could serve as a reference standard for developing quantitative assays that measure ZNRF3 levels in cell culture samples or tissue extracts. The defined concentration and purity of this recombinant protein makes it possible to establish standard curves for quantitative measurements.

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.