# Recombinant ODFP2 protein (His tag)

| | |
|---|---|
| **Catalog Number** | 545123 |
| **Synonyms** | Cenexin; Outer dense fiber of sperm tails protein 2 |
| **Species** | Human |
| **Expression System** | E. coli |
| **Accession** | Q5BJF6 |
| **Molecular Weight** | Predictes a molecular mass of 54.04 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 65 kDa band. |

## Product Information

| | |
|---|---|
| **Sequence Region** | 120-568 |
| **Form** | Lyophilized powder |
| **Formulation** | Lyophilized from sterile PBS, pH 7.4 |
| **Purity** | >90%, by SDS-PAGE with Coomassie Brilliant Blue staining. |
| **Endotoxin** | Not tested. |
| **Activity** | Not tested. |
| **Stability** | Samples are stable for up to twelve months from date of receipt at -70℃ |
| **Protein Construction** | DNA encoding 120-568 aa (Q5BJF6) were fused with 6His tag. |

## Storage & Handling

| | |
|---|---|
| **Reconstitution** | Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution. |
| **Storage** | Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles. |
| **Shipping** | In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature.<br>Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise. |

## Description

| | |
|---|---|
| **Description** | Recombinant Human Outer Dense Fiber Protein 2 (ODF2) Fragment (aa 120-568) is a high-quality protein product designed for structural and biochemical research. This 449-amino acid fragment represents a stable and soluble unit of Cenexin, a key component of sperm tail outer dense fibers and centrosomal structures, making it ideal for investigating cellular architecture and motility mechanisms.<br>Outer Dense Fiber Protein 2 (ODF2/Cenexin) is a multifunctional scaffold protein that serves as a major structural component of sperm tail outer dense fibers, which contribute to maintaining passive elastic structures and enabling elastic recoil during sperm motility. Additionally, ODF2 plays critical roles in centrosome organization, where it localizes specifically to the distal/subdistal appendages of mother centrioles and is essential for proper centrosomal matrix formation. The protein facilitates the localization of PLK1 and NIN to centrosomes and supports normal centrin assembly, highlighting its importance in microtubule organization and cell division. ODF2 is predominantly found in the centrosome, centrioles, spindle poles, and ciliary structures, positioning it as a crucial regulator of both motile and non-motile cellular projections. |