# Recombinant FIGN protein (His tag)

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| **Catalog Number** | 549770 |
| **Species** | Human |
| **Expression System** | E. coli |
| **Accession** | Q5HY92 |
| **Molecular Weight** | Predictes a molecular mass of 35.46 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 36 kDa band. |

## Product Information

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| **Sequence Region** | 457-759 |
| **Form** | Lyophilized powder |
| **Formulation** | Lyophilized from sterile PBS, pH 7.4 |
| **Purity** | >86%, 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 457-759 aa (Q5HY92) were fused with 6His tag. |

## Storage & Handling

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| **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

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| **Description** | Recombinant Human Fidgetin (FIGN) Fragment (457-759) is a high-purity, stable protein product designed for structural and biochemical studies. This 303-amino acid fragment represents a soluble and well-folded region of Fidgetin, an ATP-dependent microtubule severing enzyme, providing an ideal tool for investigating microtubule dynamics and cellular organization.<br>Fidgetin, encoded by the FIGN gene, is an ATP-dependent microtubule severing protein that plays crucial roles in cellular architecture and division. It severs microtubules along their length and promotes depolymerization, particularly at the minus-end, which suppresses microtubule growth from centrosomes. This activity facilitates rapid reorganization of microtubule arrays and release of microtubules from centrosomes after nucleation. During mitosis, Fidgetin's severing function enables microtubule release from spindle poles, contributing to poleward microtubule flux and chromosome movement. The protein localizes to the nucleus matrix, cytoplasm, cytoskeleton, and specifically to centrosomes throughout mitosis, as well as to the spindle midzone during telophase, highlighting its importance in cell division processes. |