# Recombinant TULP1 protein (His tag)

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| **Catalog Number** | 544027 |
| **Synonyms** | Tubby-like protein 1 |
| **Species** | Human |
| **Expression System** | E. coli |
| **Accession** | O00294 |
| **Molecular Weight** | Predictes a molecular mass of 30.81 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 31 kDa band. |

## Product Information

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| **Sequence Region** | 286-542 |
| **Form** | Lyophilized powder |
| **Formulation** | Lyophilized from sterile PBS, pH 7.4 |
| **Purity** | >88%, 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 286-542 aa (O00294) 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 Tubby-related protein 1 (TULP1) fragment (residues 286-542) is a high-quality, stable protein designed for structural and biochemical studies. This 257-amino acid fragment retains key solubility properties, making it ideal for investigating photoreceptor synapse development, protein transport mechanisms, and lipid-binding interactions in retinal biology.<br>Tubby-related protein 1 (TULP1) is essential for normal photoreceptor synapse development and long-term photoreceptor cell survival. It interacts with cytoskeleton proteins, potentially facilitating protein transport in photoreceptor cells, and binds multiple lipids including phosphoinositides, phosphatidylserine, and phosphatidic acid in vitro. TULP1 contributes to phagocytosis stimulation in retinal pigment epithelium cells and macrophages. Located primarily in the cytoplasm and peripherally associated with the cell membrane, it is also detected at photoreceptor synapses and is secreted via a non-classical pathway despite lacking a cleavable signal peptide. |