# Recombinant OTUD1 protein (His tag)

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| **Catalog Number** | 549232 |
| **Synonyms** | DUBA-7 |
| **Species** | Human |
| **Expression System** | E. coli |
| **Accession** | Q5VV17 |
| **Molecular Weight** | Predictes a molecular mass of 24.47 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 26 kDa band. |

## Product Information

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| **Sequence Region** | 284-481 |
| **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 284-481 aa (Q5VV17) 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 OTU domain-containing protein 1 (OTUD1) fragment (residues 284-481) from Homo sapiens, encompassing the full OTU and UIM domains. This high-purity protein is an essential tool for investigating deubiquitination mechanisms, specifically targeting Lys-63-linked polyubiquitin chains, and studying ribosomal quality control pathways in cellular regulation.<br>OTU domain-containing protein 1 (OTUD1) is a deubiquitinating enzyme encoded by the OTUD1 gene in humans, specifically hydrolyzing Lys-63-linked polyubiquitin chains into monoubiquitin. It plays a critical role in maintaining mRNA stability and translation efficiency for transcripts rich in rare codons by deubiquitinating the 40S ribosomal protein RPS10/eS10. This activity counteracts ZNF598-mediated ubiquitination, preventing ribosome quality control pathway activation and promoting polysome formation and translation. The provided fragment, spanning residues 284-481, includes the complete OTU and UIM domains, enabling focused studies on domain-specific deubiquitination functions and their impact on ribosomal and translational regulation. |