# Recombinant SC16A protein (His tag)

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| **Catalog Number** | 539442 |
| **Synonyms** | SEC16 homolog A; p250 |
| **Species** | Human |
| **Expression System** | E. coli |
| **Accession** | O15027 |
| **Molecular Weight** | Predictes a molecular mass of 32.91 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 33 kDa band. |

## Product Information

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| **Sequence Region** | 1613-1889 |
| **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 1613-1889 aa (O15027) 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 SEC16A (1613-1889) is a 277-amino acid fragment of Protein transport protein Sec16A, a key molecular scaffold essential for endoplasmic reticulum exit site (ERES) organization and secretory cargo trafficking. This fragment is engineered for high stability and solubility, making it an ideal tool for structural studies and biochemical assays investigating ER-Golgi transport mechanisms.<br>Protein transport protein Sec16A (SEC16 homolog A) serves as a critical molecular scaffold that organizes endoplasmic reticulum exit sites (ERES), playing a fundamental role in secretory cargo transport from the endoplasmic reticulum to the Golgi apparatus. The full-length protein localizes to endoplasmic reticulum and Golgi apparatus membranes, where it mediates multiple cellular processes including SAR1A-GTP-dependent assembly at ERES, recruitment of MIA3/TANGO to exit sites, regulation of CFTR trafficking to the cell membrane, stabilization of E3 ubiquitin-protein ligases RNF152 and RNF183, and functioning as a RAB10 effector in insulin-induced GLUT4 vesicle delivery. Its proper localization to ERES requires MIA3 and LRRK2, and its membrane association is maintained through SAR1A activity, highlighting its central role in intracellular protein trafficking and membrane dynamics. |