

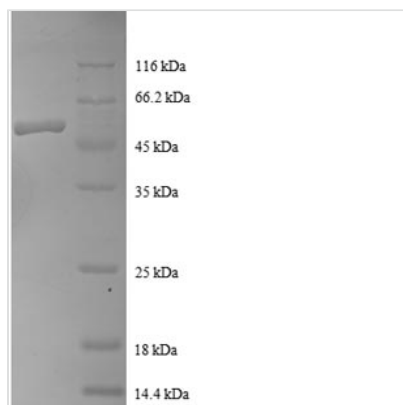


# Recombinant Human Ras-related protein Rab-1A (RAB1A)

<b>Product Code</b>	CSB-EP019167HU
<b>Relevance</b>	The small GTPases Rab are key regulators of intracellular mbrane trafficking, from the formation of transport vesicles to their fusion with mbranes. Rabs cycle between an inactive GDP-bound form and an active GTP-bound form that is able to recruit to mbranes different sets of downstream effectors directly responsible for vesicle formation, movent, tethering and fusion. RAB1A regulates vesicular protein transport from the endoplasmic reticulum (ER) to the Golgi compartment and on to the cell surface, and plays a role in IL-8 and growth hormone secretion. Regulates the level of CASR present at the cell mbrane. Plays a role in cell adhesion and cell migration, via its role in protein trafficking. Plays a role in autophagosome assbly and cellular defense reactions against pathogenic bacteria. Plays a role in microtubule-dependent protein transport by early endosomes and in anterograde melanosome transport.
<b>Abbreviation</b>	Recombinant Human RAB1A protein
<b>Storage</b>	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
<b>Uniprot No.</b>	P62820
<b>Alias</b>	YPT1-related protein
<b>Product Type</b>	Recombinant Protein
<b>Immunogen Species</b>	Homo sapiens (Human)
<b>Purity</b>	Greater than 90% as determined by SDS-PAGE.
<b>Sequence</b>	SSMNPEYDYLFKLLIGDSGVGKSCLLLRFADDTYTESYISTIGVDFKIRTIELDG KTIKLQIWDTAGQERFRTITSSYYRGAHGIIVVYDVTDAQESFNNVKQWLQEIDR YASENVNKL LVGNKCDLT TTKKVVDYTTAKEFADSLGIPFLETSAKNATNVEQSF MTMAAEIKKRMGPGATAGGAEKSNVKIQSTPVKQSGGGCC
<b>Research Area</b>	Transport
<b>Source</b>	E.coli
<b>Target Names</b>	RAB1A
<b>Expression Region</b>	2-205aa
<b>Notes</b>	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
<b>Tag Info</b>	N-terminal GST-tagged
<b>Mol. Weight</b>	49.5kDa
<b>Protein Length</b>	Full Length of Mature Protein



## Image



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

## Description

The region for expressing recombinant Human RAB1A contains amino acids 2-205. The expected molecular weight for the RAB1A protein is calculated to be 49.5 kDa. This protein is generated in a e.coli-based system. The N-terminal GST tag was fused into the coding gene segment of RAB1A, making it easier to detect and purify the RAB1A recombinant protein in the later stages of expression and purification.

The human Ras-related protein Rab-1A (RAB1A) is a key regulator of intracellular vesicle trafficking. RAB1A functions within the Rab family of small GTPases. RAB1A plays a crucial role in the early secretory pathway, particularly in the transport of vesicles from the endoplasmic reticulum (ER) to the Golgi apparatus. Its main function involves the coordination of vesicle budding, transport, and fusion with target membranes. Additionally, RAB1A has implications for autophagy and cellular homeostasis. Research on RAB1A delves into its specific roles in vesicular transport, its regulatory mechanisms, and its involvement in various cellular processes, providing insights into potential therapeutic targets for diseases associated with membrane trafficking dysregulation.

## Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

## Shelf Life

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