Recombinant RAP2A protein (His tag)

Catalog Number	544370
Synonyms	RbBP-30
Species	Human
Expression System	E. coli
Accession	P10114
Molecular Weight	Predictes a molecular mass of 21.91 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 24 kDa band.

Product Information

Sequence Region	1-180
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>85%, 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 1-180 aa (P10114) were fused with 6His tag.

Storage & Handling

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. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Recombinant Ras-related protein Rap-2a (EC 3.6.5.2) fragment (amino acids 1-180) from Homo sapiens. This high-purity, stable protein fragment is ideal for investigating GTPase signaling mechanisms, cytoskeletal dynamics, and neuronal development in biochemical and structural studies. Ras-related protein Rap-2a is a small GTP-binding protein that cycles between GDP-bound inactive and GTP-bound active states, regulating key cellular processes. In its active form, it interacts with effectors such as MAP4K4, MINK1, and TNIK, forming part of a signaling complex with NEDD4 and TNIK that controls neuronal dendrite extension and arborization during development. Rap-2a also plays a broader role in signaling cascades influencing cytoskeletal rearrangements, cell migration, adhesion, and spreading. It localizes to multiple subcellular compartments, including the midbody, lamellipodium membrane, Golgi apparatus, recycling endosomes, and lysosomes, with dynamic cycling between the plasma membrane and endosomes upon ubiquitination. This fragment encompasses the full-length functional domain (residues 1-180), providing a soluble and stable unit for experimental applications.