Recombinant RASM protein (His tag)

Catalog Number	541723
Synonyms	Ras-related protein R-Ras3
Species	Human
Expression System	E. coli
Accession	O14807
Molecular Weight	Predictes a molecular mass of 25.18 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 26 kDa band.

Product Information

Sequence Region	1-205
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 1-205 aa (O14807) 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 Human Ras-related protein M-Ras (MRAS) fragment (residues 1-205) is a high-purity protein designed for structural and biochemical studies. This fragment represents a stable, soluble unit of the full-length protein, enabling detailed investigation of its role in the Ras-MAPK signaling pathway, which regulates critical cellular processes such as proliferation and survival. Ras-related protein M-Ras (MRAS) is a signal transducer in the Ras-MAPK signaling pathway, playing a pivotal role in regulating cell proliferation and survival. It functions as a core component of the SHOC2-MRAS-PP1c (SMP) holophosphatase complex, which is essential for MAPK pathway activation. The SMP complex specifically dephosphorylates inhibitory sites on RAF1, BRAF, and ARAF kinases, thereby stimulating their kinase activities. MRAS exhibits low intrinsic GTPase activity and requires GTP-binding for SMP complex formation. This protein is localized to the cell membrane, where it is anchored via a lipid modification on the cytoplasmic side, facilitating its involvement in key signaling events at the membrane interface.