Recombinant CAPR1 protein (His tag)

Catalog Number	544977
Synonyms	Cell cycle-associated protein 1; Cytoplasmic activation- and proliferation-associated protein 1; GPI-anchored membrane protein 1; GPI-anchored protein p137; GPI-p137; p137GPI; Membrane component chromosome 11 surface marker 1; RNA granule protein 105
Species	Human
Expression System	E. coli
Accession	Q14444
Molecular Weight	Predictes a molecular mass of 29.20 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 32 kDa band.

Product Information

Sequence Region	2-248
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 2-248 aa (Q14444) 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 Caprin-1 Fragment (aa 2-248) is a high-quality protein preparation ideal for studying mRNA regulation, cytoplasmic stress granule formation, and phase separation mechanisms. This 247-amino acid fragment represents a stable, soluble unit of the multifunctional RNA-binding protein Caprin-1, optimized for structural and biochemical applications. Caprin-1 is a crucial mRNA-binding protein that regulates mRNA transport, translation, and stability, playing essential roles in neurogenesis, synaptic plasticity, cell proliferation, and migration. The protein undergoes liquid-liquid phase separation to form cytoplasmic ribonucleoprotein granules that concentrate mRNAs with associated regulatory factors. Caprin-1 directly binds to key mRNAs including MYC, CCND2, BDNF, and CAMK2A, and mediates recruitment of CNOT7 deadenylase for mRNA degradation. It localizes primarily to cytoplasmic ribonucleoprotein granules, cytosol, dendrites, and lamellipodia, and is essential for cytoplasmic stress granule formation. The full-length protein's involvement in phase-separated membraneless compartments makes it a critical target for understanding mRNA regulation mechanisms in both normal cellular processes and disease contexts.