Recombinant CAVN3 protein (His tag)

Catalog Number	540929
Synonyms	Cavin-3; Protein kinase C delta-binding protein; Serum deprivation response factor-related gene product that binds to C-kinase; hSRBC
Species	Human
Expression System	E. coli
Accession	Q969G5
Molecular Weight	Predictes a molecular mass of 15.62 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 16 kDa band.

Product Information

Sequence Region	1-131
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>87%, 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 1-131 aa (Q969G5) 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 CAVIN3 (1-131) is a high-purity protein fragment representing the N-terminal region of Caveolae-associated protein 3 (Cavin-3). This 131-amino acid fragment has been specifically engineered for optimal stability and solubility, making it an ideal reagent for structural studies, biochemical assays, and functional investigations of caveolae dynamics and circadian regulation mechanisms. Caveolae-associated protein 3 (Cavin-3) is a key regulator of caveolae trafficking and formation, playing a crucial role in the equilibrium between cell surface-associated and dissociated caveolae by promoting rapid release from the cell surface. The protein demonstrates tissue-specific functions, being essential for caveolae formation in smooth muscle but not in lung and heart endothelial cells. Additionally, Cavin-3 contributes to circadian clock regulation by modulating period length and phase of circadian gene expression, while influencing the expression and interaction of core clock components PER1/2 and CRY1/2. The protein localizes primarily to the cytoplasm and caveolae membranes in a caveolin-dependent manner, with additional presence in the cytosol, highlighting its dynamic cellular distribution and multifaceted regulatory functions.