Recombinant CAV2 protein (His tag)

Catalog Number	542389
Species	Human
Expression System	E. coli
Accession	P51636
Molecular Weight	Predictes a molecular mass of 15.77 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 16 kDa band.

Product Information

Sequence Region	38-162
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 38-162 aa (P51636) 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 Caveolin-2 (CAV2) Fragment (residues 38-162) is a high-purity, stable protein designed for structural and biochemical studies. This fragment represents a soluble and functional unit of Caveolin-2, enabling researchers to explore its scaffolding properties and regulatory roles in signaling pathways. Caveolin-2, encoded by the CAV2 gene in Homo sapiens, functions as a scaffolding protein within caveolar membranes. It interacts directly with G-protein alpha subunits to regulate their activity and collaborates with CAV1 in targeting lipid rafts and driving caveolae formation. The protein plays a critical role in cellular mitogenesis via the MAPK signaling pathway and is required for insulin-stimulated nuclear translocation and activation of MAPK1 and STAT3, facilitating cell cycle progression. Subcellularly, Caveolin-2 localizes to the nucleus, cytoplasm, Golgi apparatus membrane, cell membrane, and caveolae membranes, with phosphorylated forms exhibiting distinct localization patterns that influence mitosis and cellular responses.